

PB85-242626

Assessment of Human Health Risk from
Ingesting Fish and Crabs from
Commencement Bay: Appendices

Versar, Inc., Springfield, VA

Prepared for

Environmental Protection Agency, Washington, DC

Mar 85



U.S. Department of Commerce
National Technical Information Service

NTIS

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16. Abstract (Limit: 200 words) Appendices to EPA 910/9-85-129 The purpose of this document is to quantify the level of individual risk that may be experienced by persons eating fish and crabs from Commencement Bay. This risk assessment is based on a large volume of monitoring data generated during the summer and fall of 1984 by the Washington State Department of Ecology and its consultants. This effort is hampered by an inability of today's scientific instrumentation to detect very low levels of pollutants, and a basic lack of data on the predictable human health effects of exposure to pollutants. This risk assessment is based on the best available data and utilizes state-of-the-art monitoring data and risk analysis techniques. It is not, however, a perfect representation of the potential effects of eating Commencement Bay fish, because of the limitations discussed above. It is designed to err on the conservative side of protecting health in the Tacoma area.				13. Type of Report & Period Covered
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APPENDICES

FINAL REPORT

ASSESSMENT OF HUMAN HEALTH RISK FROM INGESTING
FISH AND CRABS
FROM COMMENCEMENT BAY

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Office of Solid Waste and Emergency Response

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APPENDIX A
DERIVATION OF
BOAT FISHING POPULATION

Appendix A

Derivation of Boat Fishing Population

The following calculations document the derivation of the estimated 1170 unique boat fishermen of Commencement Bay. These are derived from the Pierce et al. (1981) catch/consumption survey of the Bay. Appendix 19 of that report states that at Area 5, the boat dock (which was surveyed in September through November of 1981), there were an average of 15.5 fishermen per day.

The ratio of fall boat launchings to summer boat launchings can be calculated from the data presented in Appendix 21 of the catch/consumption study:

$$\frac{341 \text{ launchings/day Sept.-Nov.}}{487 \text{ launchings/day July-Sept.}} = 0.7$$

It can therefore be predicted that, if Area 5 (the boat ramp) had been surveyed in the summer, 22 fishermen would have been present:

$$\frac{15.5 \text{ boaters/day-fall}}{0.7} = 22 \text{ boat fishermen/day, summer}$$

The frequency of boat fishing in Area 5 was also presented by Pierce et al., and can be combined with the coefficient approach used to quantify shore fishermen, as shown in Table A-1, to estimate 1170 unique boat fishermen.

TABLE A-1. DERIVATION OF BOAT FISHERMEN

FREQUENCY	PERCENT OF RESPONDANTS note 1	NUMBER note 2	COEFFICIENT note 3	UNIQUE FISHERMEN note 4
daily	0	0	1.2	0
weekly	48	11	7	77
monthly	33	7	30.4	213
twice/month	5	1	60.8	61
twice/year	7	1.5	182.5	274
yearly	7	1.5	365	548
TOTAL				1173

Note 1- From Appendix 18, Pierce et al. (1981)

Note 2- Frequency by percent applied to total of 22 fishermen

Note 3- Constants derived by Pierce et al.

Note 4- NUMBER x COEFFICIENT columns

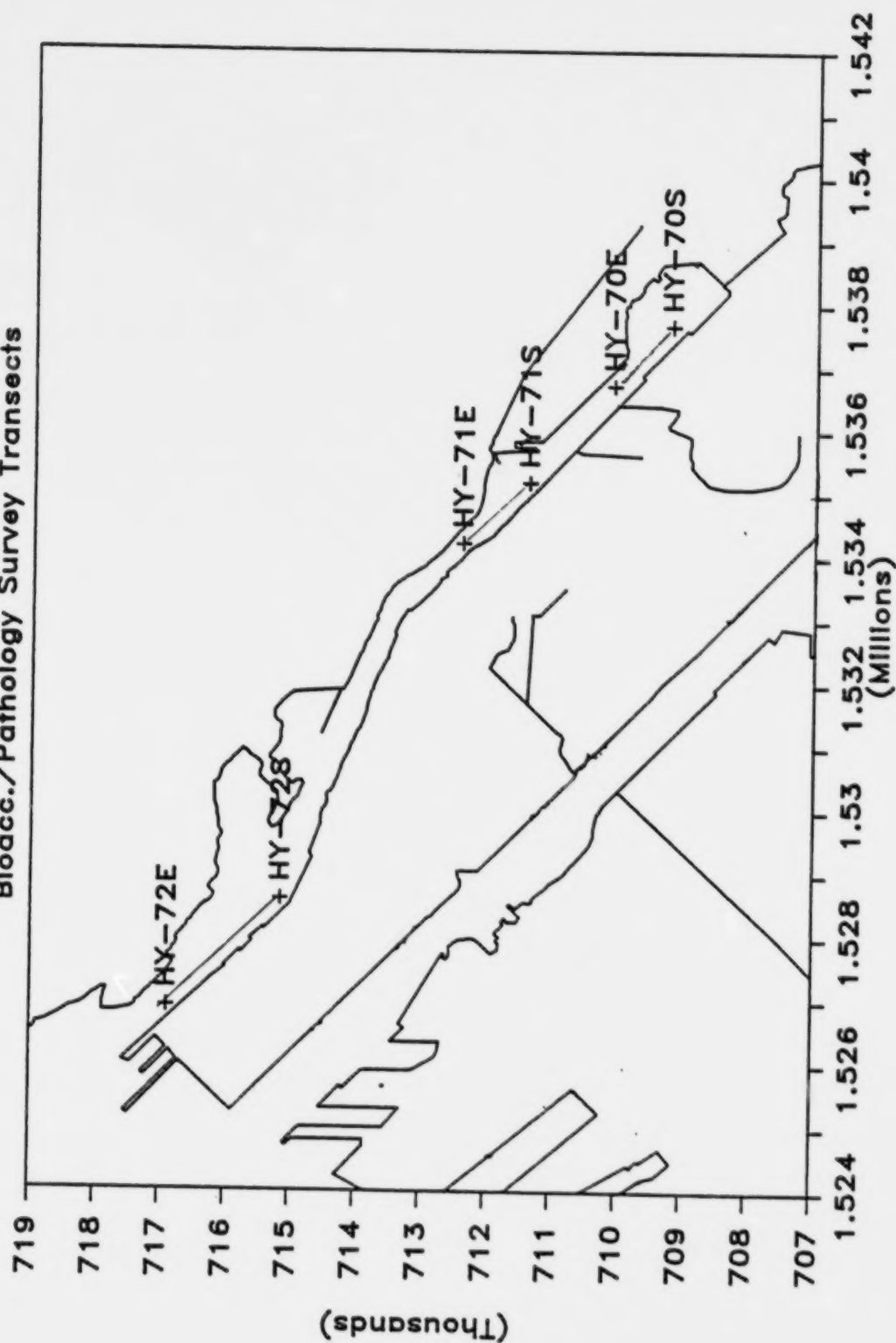
Total rounded to 1170

APPENDIX B

LOCATION OF SAMPLING STATIONS

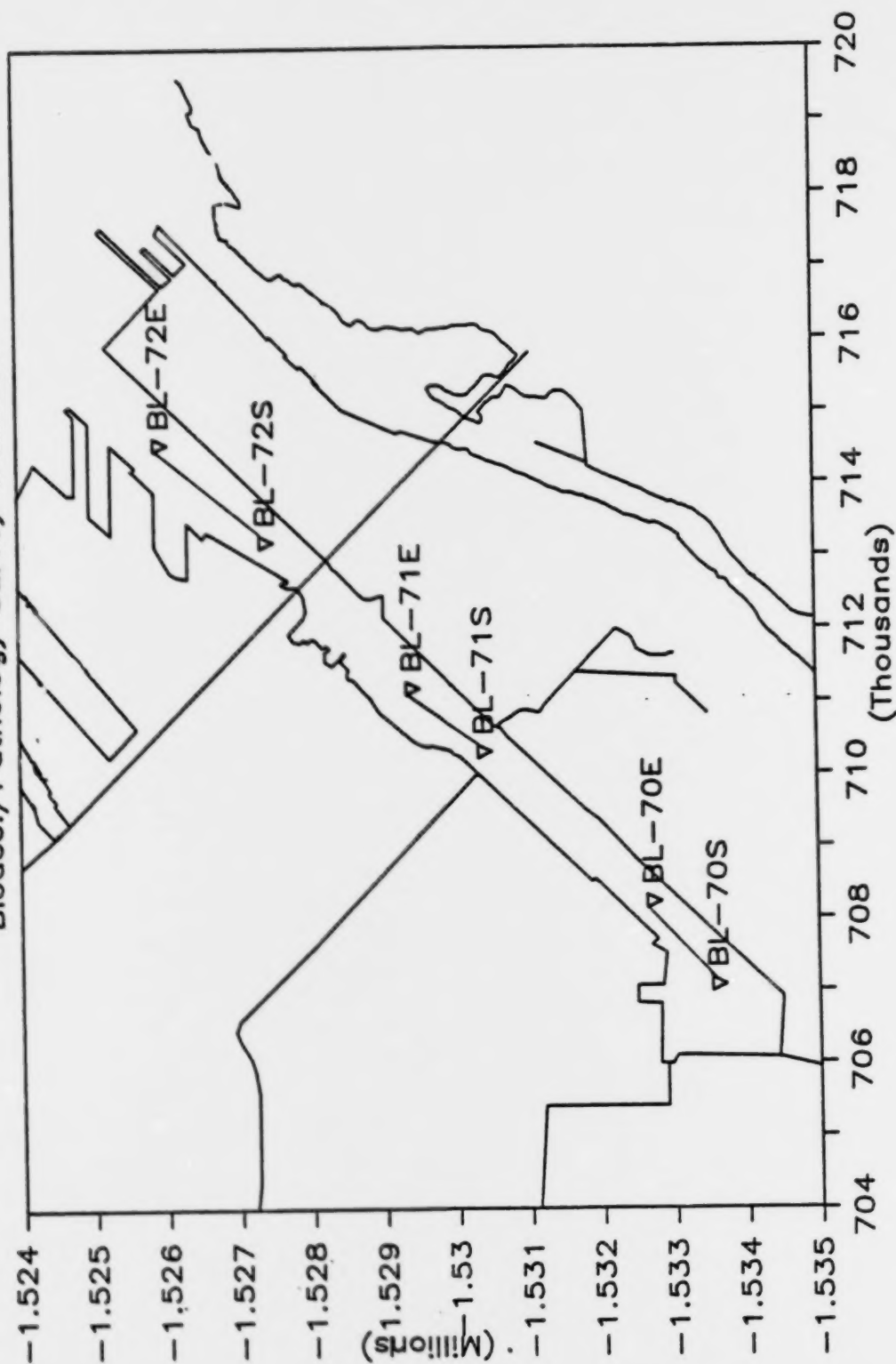
HYLEBOS WATERWAY

Bloacc./Pathology Survey Transects



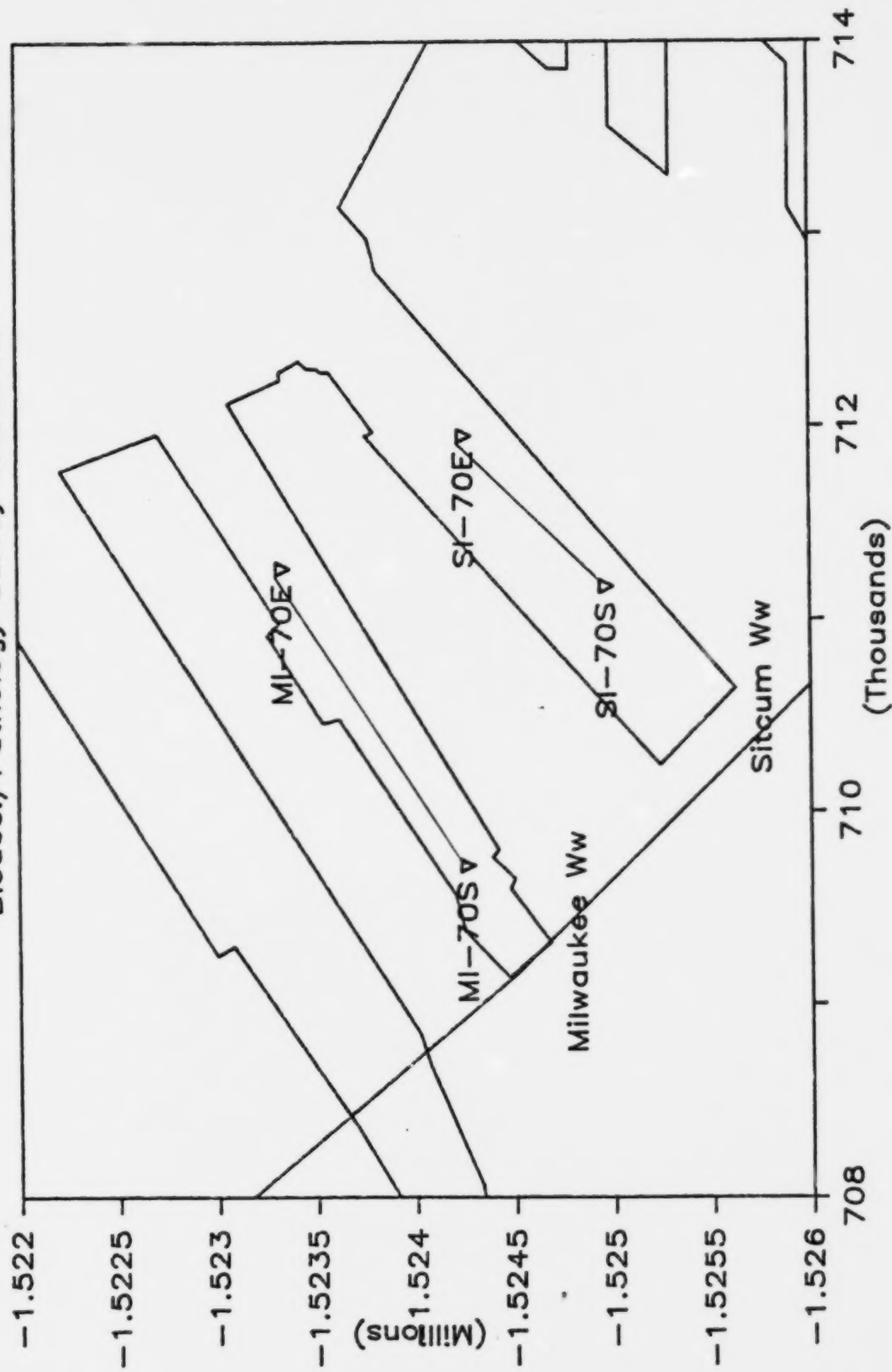
BLAIR WATERWAY

Bioacc./Pathology Survey Transects



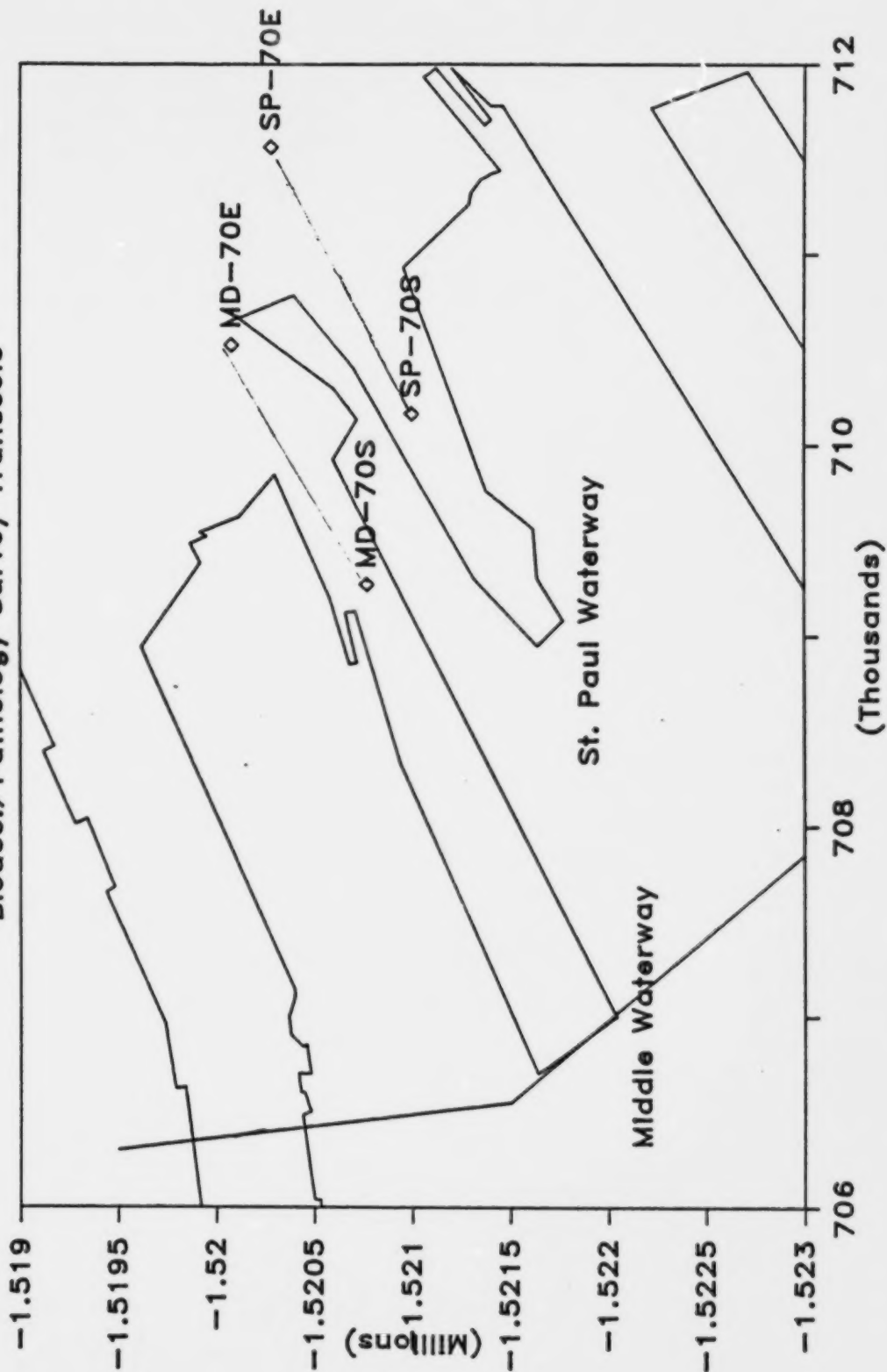
SITCUM AND MILWAUKEE WATERWAYS

Bioacc./Pathology Survey Transects



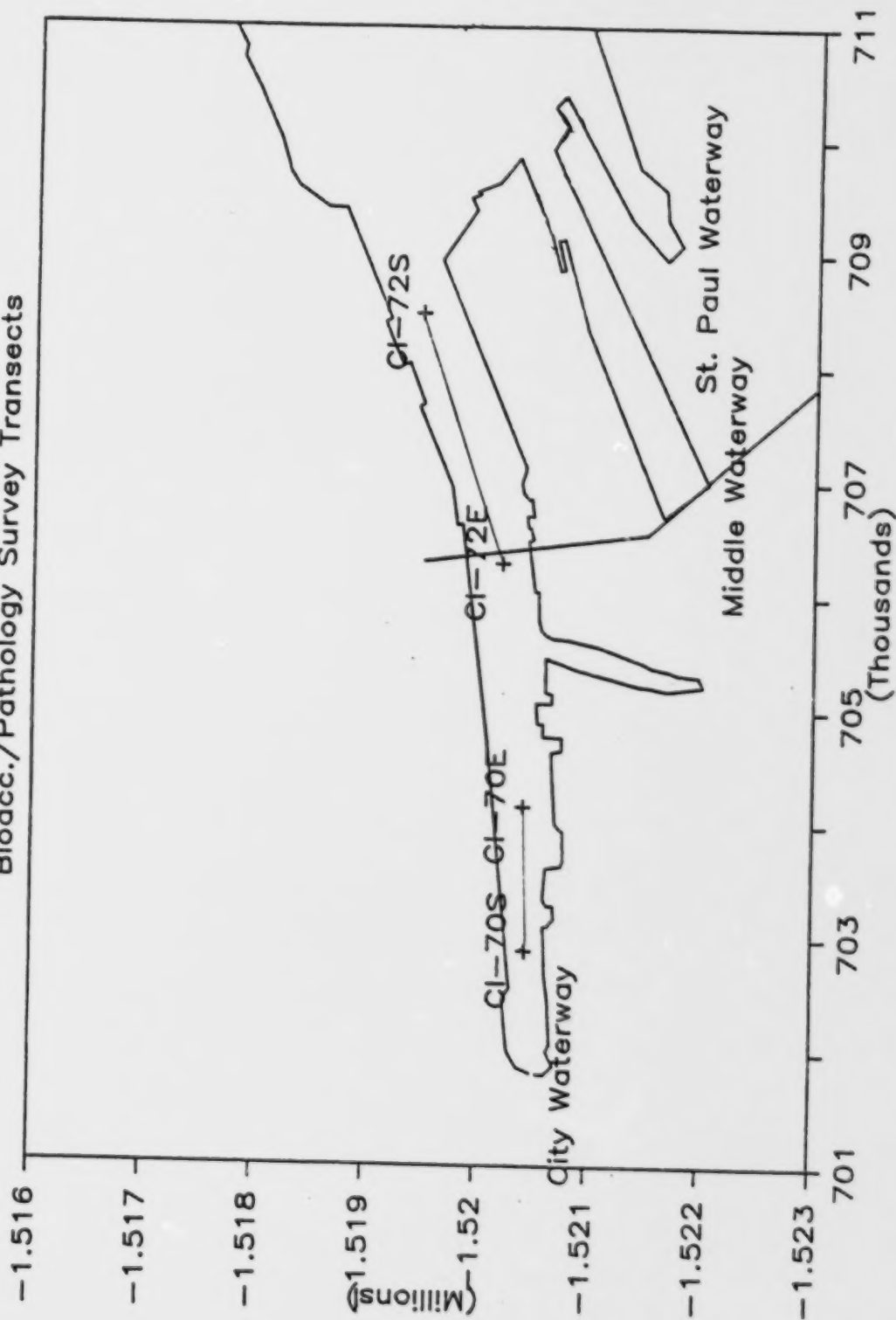
St. Paul and Middle Waterways

Bloacc./Pathology Survey Transects



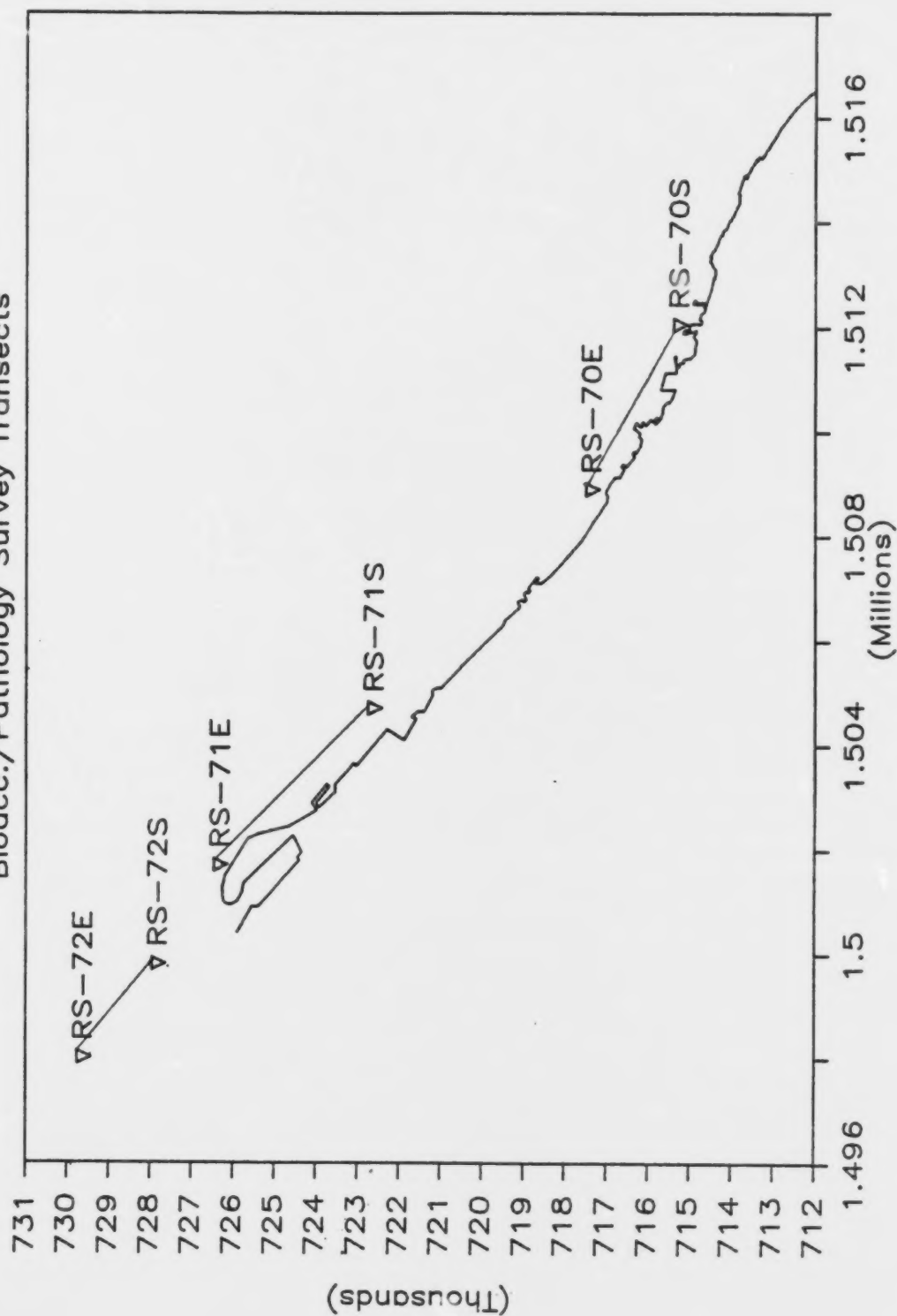
CITY WATERWAY

Bioacc./Pathology Survey Transects



RUSTON SHORELINE

Bioacc./Pathology Survey Transects



APPENDIX C

POLLUTANTS UNDETECTED IN ALL SAMPLES FROM ALL SITES

ATTACHMENT I
EPA PRIORITY POLLUTANTS
UNDETECTED IN ALL FISH/CRAB MUSCLE TISSUE SAMPLES FROM ALL SITES

Phenols (acids; 2 of 2)

Typical detection limit

phenol	U 20
2,4-dimethylphenol	U 20

Substituted Phenols (acids; 8 of 9)

2,4,6-trichlorophenol	U 20
p-chloro-m-cresol	U 20
2-chlorophenol	U 20
2,4-dichlorophenol	U 20
2-nitrophenol	U 20
4-nitrophenol	U 100
2,4-dinitrophenol	U 100
4,6-dinitro-2-methylphenol	U 25

Low Molecular Weight Aromatic Hydrocarbons (neutrals; 5 of 6)

acenaphthene	U 10
acenaphthylene	U 10
anthracene	U 10
phenanthrene	U 10*
fluorene	U 10

High Molecular Weight PAH (neutrals; 10 of 10)

fluoranthene	U 10*
benzo(a)anthracene	U 10
benzo(a)pyrene	U 10
benzo(b)fluoranthene	U 10
benzo(k)fluoranthene	U 10
chrysene	U 10
benzo(g,h,i)perylene	U 10
dibenzo(a,h)anthracene	U 10
indeno(1,2,3-c,d)pyrene	U 10
pyrene	U 10

Chlorinated Aromatic Hydrocarbons (neutrals; 4 of 6)

1,2,4-trichlorobenzene	U 20
2-chloronaphthalene	U 10
1,2-dichlorobenzene	U 20
1,4-dichlorobenzene	U 20

* detected at <50 ppb in a single crab at MD-70C

UNDETECTED EPA PRIORITY POLLUTANTS IN TISSUE
Page 2 of 4

Chlorinated Aliphatic Hydrocarbons (neutrals; 2 of 3)

hexachloroethane	U	40
hexachlorocyclopentadiene	N/A	

Halogenated Ethers (neutrals; 5 of 5)

bis(2-chloroethyl)ether	U	20
4-chlorophenylphenylether	U	20
4-bromophenylphenylether	U	20
bis(2-chloroisopropyl)ether	U	20
bis(2-chloroethoxy)methane	U	20

Miscellaneous oxygenated compounds (neutrals; 2 of 2)

2,3,7,8-tetrachlorodibenzo-p-dioxin	N/A	
isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	U	10

Organonitrogen Compounds (bases; 8 of 8)

benzidine (4,4'-diaminobiphenyl)	N/A	
3,3'-dichlorobenzidine	N/A	
2,4-dinitrotoluene	U	20
2,6-dinitrotoluene	U	20
1,2-diphenylhydrazine (hydrazobenzene)	U	10
nitrobenzene	U	20
n-nitrosodiphenylamine	U	10
n-nitrosodipropylamine	U	20

Pesticides (neutrals; 18 of 18)

aldrin	U	50
dieldrin	U	50
chlordane	U	50
4,4'-DDT	U	50
4,4'-DDE	U	50
4,4'-DDD	U	50
alpha-endosulfan	U	50
beta-endosulfan	U	50
endosulfan sulfate	U	50
endrin	U	50

UNDETECTED EPA PRIORITY POLLUTANTS IN TISSUE
Page 3 of 4

Pesticides (continued)

endrin aldehyde	U	50
heptachlor	U	50
heptachlor epoxide	U	50
alpha-HCH	U	50
beta-HCH	U	50
delta-HCH	U	50
gamma-HCH	U	50
toxaphene (camphechlor)	U	50

Volatile Halogenated Alkanes (neutrals; 16 of 17)

carbon tetrachloride	U	5	
1,2-dichloroethane	U	10	
1,1,1-trichloroethane	U	5	
1,1-dichloroethane	U	5	
1,1,2-trichloroethane	U	5	
1,1,2,2-tetrachloroethane	U	5	
chloroethane	U	10	
chloroform	U	5	
1,2-dichloropropane	U	10	
methylene chloride (dichloromethane)	NR		
chloromethane	U	10	
bromomethane	U	10	
bromoform	U	10	
bromodichloromethane	U	10	
dichlorodifluoromethane	U	10	[removed from pp list]
chlorodibromomethane	U	5	

Volatile Halogenated Alkenes (neutrals; 5 of 6)

1,1-dichloroethene	U	10
trans-1,2-dichloroethene	U	5
cis and trans-1,3-dichloropropene	U	10
trichloroethene	U	5
vinyl chloride	U	10

Volatile Aromatic Hydrocarbons (neutrals; 1 of 3)

benzene	U	5
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Volatile Chlorinated Aromatic Hydrocarbons (neutrals; 1)

chlorobenzene	U	5
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UNDETECTED EPA PRIORITY POLLUTANTS IN TISSUE
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Volatile Unsaturated Carbonyl Compounds (base/neutrals; 2)

acrolein (an unsaturated aldehyde)	U 100
acrylonitrile (an unsaturated nitrile)	U 100

Volatile Ethers (neutrals; 2)

2-chloroethylvinyl ether	U 100
bis(chloromethyl)ether	N/A [removed from pp list]

- - - - -

Qualifiers -

U: Undetected at the detection limit stated (ug/kg or ppb wet weight tissue)
NR: Not reported or all data rejected during QA review
N/A: Not analyzed

FISH TISSUE CONCENTRATIONS (ppb wet weight) page 1 of 4
 COMMENCEMENT BAY STUDIES - SELECTED PESTICIDES BY GC/EC

	DDE (p,p')	DDD isomers	DDT only		DDE (p,p')	DDD isomers	DDT only
BL-70-790*	1.0	16	U 12	HY-70-490	1.6	U 12	U 12
-800	6.1	U 12	U 12	-500	U 8.0	U 120	U 120
-808	9.6	U 12	U 12	-510	2.6	U 12	U 12
-810	8.6	U 12	U 12	-520	12.	U 120	U 12
-820	9.8	U 24	U 24	-540	30.	U 120	U 120
BL-71-730	8.6	U 12	U 12	HY-71-550	7.4	U 12	U 12
-740	13.	U 12	U 12	-560	4.3	U 12	U 12
-750	7.0	U 12	U 12	-570	U 8.0	U 120	U 120
-760	13.	U 12	U 12	-580	U 8.0	U 120	U 120
-770	4.5	U 12	U 12	-590	0.9	U 12	U 12
BL-72-610	12.	U 12	U 12	HY-72-430	5.2	U 12	U 12
-620	6.5	U 12	U 12	-440	0.9	U 12	U 12
-630	11.	U 12	U 12	-450	3.0	U 12	U 12
-640	18.	U 12	U 12	-460	2.7	U 12	U 12
-650	9.7	U 15	U 15	-470	U 8.0	U 120	U 120
CI-70- 70	16.	U 120	U 120	MD-70-130	1.9	U 12	U 12
- 80	24.	U 120	U 120	-140	4.2	U 12	U 12
- 90	11.	U 12	U 12	-150	1.3	U 12	U 12
-100	13.	U 12	U 12	-160	4.2	U 12	U 12
-110	16.	U 120	U 12	-170	3.8	U 18	U 18
CI-72- 10	4.5	U 12	U 12	MI-70-250	1.9	U 12	U 12
- 20	13.	U 120	U 120	-260	12.	U 12	U 12
- 30	4.2	U 12	U 12	-270	7.5	U 12	U 12
- 40	8.6	U 12	U 12	-280	5.0	U 12	U 12
- 50	1.7	U 12	U 12	-290	4.0	U 12	U 12
CR-70-310	1.6	U 2.4	U 2.4	RS-70-190	1.5	U 12	U 12
-320	U 1.0	U 3.0	U 3.0	-210	1.9	U 12	U 12
-330	U 0.8	U 2.4	U 2.4	-220	9.9	U 12	U 12
-340	2.1	U 12	U 12	-230	19.	U 12	U 12
-350	3.9	U 12	U 12	-240	U 8.0	U 12	U 12
CR-71-370	U 0.8	U 2.4	U 2.4	RS-71-961	2.9	U 12	U 12
-380	U 0.8	U 2.4	U 12	-968	5.4	U 12	U 12
-390	U 0.8	U 12	U 12	-981	4.1	U 12	U 12
-400	3.4	U 12	U 12	-991	U 1.0	U 3.0	U 3.0
-410	2.9	U 12	U 12	-1008	3.2	U 12	U 12
SI-70-850	1.6	U 12	U 12	RS-72-910	1.1	U 3.0	U 3.0
-860	2.6	U 12	U 12	-915	U 8.0	U 12	U 12
-870	4.1	U 12	U 12	-920	2.1	U 12	U 12
-880	16.	U 12	U 12	-925	3.9	U 12	U 12
-890	5.7	U 12	U 12	-927	U 8.0	U 12	U 12

* sample number reported as Waterway-Station-Individual Fish or Crab Number

FISH TISSUE CONCENTRATIONS (ppb wet weight) page 2 of 4
 COMMENCEMENT BAY STUDIES - SELECTED PESTICIDES BY GC/EC

	DDE (p,p' isomers)	DDD isomers	DDT only
SP-70-670	1.7	U 16	U 16
-680	1.9	U 14	U 14
-690	U 8.0	U 12	U 12
-699	2.2	U 12	U 12
-710	U 1.0	U 15	U 15

FISH TISSUE CONCENTRATIONS (ppb wet weight)
 COMMENCEMENT BAY STUDIES - SELECTED PESTICIDES BY GC/EC

	g-HCH	ALDRIN	DIELDRIN		g-HCH	ALDRIN	DIELDRIN
BL-70-790	U 0.4	U 0.4	U 0.8	HY-70-490	U 4.0	U 0.4	U 0.8
-800	U 0.4	U 0.4	U 0.8	-500	U 4.0	U 4.0	U 8.0
-808	U 0.4	U 0.4	U 0.8	-510	U 0.4	U 0.4	U 0.8
-810	U 0.4	U 0.4	U 0.8	-520	U 4.0	U 4.0	U 8.0
-820	U 0.8	U 0.8	U 1.6	-540	U 4.0	U 4.0	U 8.0
BL-71-730	U 0.4	U 0.4	U 0.8	HY-71-550	U 4.0	U 0.4	U 0.8
-740	U 0.4	U 0.4	U 0.8	-560	U 4.0	U 4.0	U 0.8
-750	U 0.4	U 0.4	U 0.8	-570	U 4.0	U 4.0	U 8.0
-760	U 0.4	U 0.4	U 0.8	-580	U 4.0	U 4.0	U 8.0
-770	U 0.4	U 0.4	U 0.8	-590	U 4.0	U 0.4	U 0.8
BL-72-610	U 0.4	U 0.4	U 0.8	HY-72-430	U 0.4	U 0.4	U 0.8
-620	U 0.4	U 0.4	U 0.8	-440	U 4.0	U 4.0	U 0.8
-630	U 0.4	U 0.4	U 0.8	-450	U 4.0	U 0.4	U 0.8
-640	U 0.4	U 0.4	U 0.8	-460	U 4.0	U 4.0	U 0.8
-650	U 0.5	U 0.5	U 1.0	-470	U 4.0	U 4.0	U 8.0
CI-70- 70	U 0.4	U 0.4	U 0.8	MD-70-130	U 0.4	U 0.4	U 0.8
- 80	U 0.4	U 0.4	U 0.8	-140	U 0.4	U 0.4	U 0.8
- 90	U 0.4	U 0.4	U 0.8	-150	U 0.4	U 0.4	U 0.8
-100	U 0.4	U 0.4	U 0.8	-160	U 4.0	U 0.4	U 0.8
-110	U 0.4	U 0.4	U 0.8	-170	U 0.6	U 0.6	U 1.2
CI-72- 10	U 4.0	U 0.4	U 0.8	MI-70-250	U 0.4	U 0.4	U 0.8
- 20	U 0.4	U 0.4	U 8.0	-260	U 0.4	U 0.4	U 0.8
- 30	U 4.0	U 0.4	U 0.8	-270	U 0.4	U 0.4	U 0.8
- 40	U 4.0	U 4.0	U 0.8	-280	U 0.4	U 0.4	U 0.8
- 50	U 4.0	U 4.0	U 0.8	-290	U 0.4	U 0.4	U 0.8
CR-70-310	U 4.0	U 0.4	U 0.8	RS-70-190	U 0.4	U 0.4	U 0.8
-320	U 0.5	U 0.5	U 1.0	-210	U 0.4	U 0.4	U 0.8
-330	U 0.8	U 2.4	U 2.4	-220	U 0.4	U 0.4	U 0.8
-340	U 4.0	U 0.4	U 0.8	-230	U 0.4	U 0.4	U 0.8
-350	U 0.4	U 0.4	U 0.8	-240	U 0.4	U 0.4	U 0.8

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FISH TISSUE CONCENTRATIONS (ppb wet weight)
 COMMENCEMENT BAY STUDIES - SELECTED PESTICIDES BY GC/EC

	g-HCH	ALDRIN	DIELDRIN		g-HCH	ALDRIN	DIELDRIN
CR-71-370	U 0.4	U 0.4	U 0.8	RS-71-961	U 0.4	U 0.4	U 0.8
-380	U 0.4	U 0.4	U 0.8	-968	U 0.4	U 0.4	U 0.8
-390	U 0.4	U 0.4	U 0.8	-981	U 0.4	U 0.4	U 0.8
-400	U 0.4	U 0.4	U 0.8	-991	U 0.5	U 0.5	U 1.0
-410	U 0.4	U 0.4	U 0.8	-1008	U 0.4	U 0.4	U 0.8
				RS-72-910	U 0.5	U 0.5	U 1.0
				-915	U 0.4	U 0.4	U 0.8
				-920	U 0.4	U 0.4	U 0.8
				-925	U 0.4	U 0.4	U 0.8
				-927	U 0.4	U 0.4	U 0.8
				SI-70-850	U 0.4	U 0.4	U 0.8
				-860	U 0.4	U 0.4	U 0.8
				-870	U 0.4	U 0.4	U 0.8
				-880	U 0.4	U 0.4	U 8.0
				-890	U 0.4	U 0.4	U 0.8
				SP-70-670	U 0.5	U 0.5	U 0.8
				-680	U 0.5	U 0.5	U 1.0
				-690	U 0.4	U 0.4	U 0.8
				-699	U 0.4	U 0.4	U 0.8
				-710	U 0.5	U 0.5	U 1.0

CRAB TISSUE CONCENTRATIONS (ppb wet weight) page 4 of 4
 COMMENCEMENT BAY STUDIES - SELECTED PESTICIDES BY GC/EC

	DDE (p,p' isomers only)	DDD	DDT	g-HCH	ALDRIN	DIELDRIN
BL-72C-01	2.0	U 12	U 12	U 0.4	U 0.4	U 0.8
CI-70C-01	19.	U 23	U 23	U 0.8	U 0.8	U 1.5
-02	8.4	U 18	U 18	U 0.6	U 0.6	U 1.2
-03	9.7	U 17	U 17	U 0.6	U 0.6	U 1.2
CI-72C-01	1.4	U 12	U 12	U 4.0	U 0.4	U 0.8
-02	2.6	U 12	U 12	U 4.0	U 0.4	U 0.8
CR-70C-01	1.9	U 3.0	U 3.0	U 5.0	U 0.5	U 1.0
-02	U 0.8	U 2.4	U 2.4	U 4.0	U 0.4	U 0.8
-03	U 0.8	U 2.4	U 2.4	U 4.0	U 0.4	U 0.8
CR-71C-01	U 1.3	U 4.0	U 4.0	U 6.0	U 0.6	U 1.3
-03	U 0.8	U 2.4	U 2.4	U 0.4	U 0.4	U 0.8
-04	U 0.8	U 2.4	U 2.4	U 4.0	U 0.4	U 0.8
-07	0.9	U 2.4	U 2.4	U 4.0	U 0.4	U 0.8
HY-71C-08	5.4	U 12	U 12	U 0.4	U 0.4	U 0.8
MD-70C-01	U 1.4	U 20	U 20	U 0.7	U 0.7	U 1.4
-02	U 0.8	U 12	U 12	U 0.4	U 0.4	U 0.8
MI-70C-01	8.5	U 12	U 12	U 0.4	U 0.4	U 0.8
-02	3.1	U 12	U 12	U 0.4	U 0.4	U 0.8
-03	5.8	U 12	U 12	U 0.4	U 0.4	U 0.8
-04	2.9	U 12	U 12	U 0.4	U 0.4	U 0.8
-05	6.1	U 12	U 12	U 0.4	U 0.4	U 0.8
SI-70C-01	19.	U 12	U 12	U 0.4	U 0.4	U 0.8
-02	34.	U 12	U 12	U 0.4	U 0.4	U 8.0
-03	4.4	U 12	U 12	U 0.4	U 0.4	U 0.8
-04	51.	U120	U120	U 0.4	U 0.4	U 8.0
SP-70C-01	1.8	U 2.4	U 2.4	U 0.4	U 0.4	U 0.8

APPENDIX D

ORGANICS DATA FROM
COMMENCEMENT BAY BIOACCUMULATION SURVEY

Data summaries provided by Tetra Tech, Inc.
Bellevue, Washington

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight										
HALOGENATED ETHERS		PHTHALATES										
FISH SUMMARIES		bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl phthalate	di-n-butyl phthalate	di-n-octyl phthalate	diethyl phthalate	dimethyl phthalate
STATION												
BL-70		20	10	10	20	20	394	12	1035	10	10	43
Mean		0	0	0	0	0	185	5	1303	0	0	62
Std dev		0	0	0	0	0	5	1	3	0	0	2
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
BL-71		20	10	10	20	20	334	10	128	10	10	10
Mean		0	0	0	0	0	115	0	264	0	0	0
Std dev		0	0	0	0	0	5	0	1	0	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
BL-72		20	10	10	20	20	541	10	10	66	10	10
Mean		0	0	0	0	0	210	0	0	95	0	0
Std dev		0	0	0	0	0	5	0	0	2	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
CI-70		20	10	10	20	20	482	56	10	360	10	10
Mean		0	0	0	0	0	397	103	0	396	0	0
Std dev		0	0	0	0	0	4	1	0	4	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
CI-72		20	10	10	20	20	70	10	10	57	10	10
Mean		0	0	0	0	0	134	0	0	62	0	0
Std dev		0	0	0	0	0	1	0	0	3	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
HY-70		20	10	10	20	20	52	10	1584	34	10	10
Mean		0	0	0	0	0	94	0	684	54	0	0
Std dev		0	0	0	0	0	1	0	5	1	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
HY-71		20	10	10	20	20	42	10	3120	23	10	10
Mean		0	0	0	0	0	72	0	963	18	0	0
Std dev		0	0	0	0	0	1	0	5	2	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
HY-72		20	10	10	20	20	10	10	22	10	16	10
Mean		0	0	0	0	0	0	0	27	0	8	0
Std dev		0	0	0	0	0	0	0	1	0	2	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH		R.P. Feins		10/01/84		Values in ppb wet weight						
HALOGENATED ETHERS		PHTHALATES										
FISH		bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl-phthalate	di-n-butyl-phthalate	di-n-octyl-phthalate	diethyl-phthalate	dimethyl-phthalate
SUMMARIES												
STATION												
MD-70		20	10	10	20	20	10	10	10	10	10	10
Mean		0	0	0	0	0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0	0	0	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
MI-70		20	10	10	20	20	182	10	70	15	10	10
Mean		0	0	0	0	0	52	0	134	12	0	0
Std dev		0	0	0	0	0	5	0	1	1	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
RS-70		20	10	10	20	20	508	10	332	96	10	10
Mean		0	0	0	0	0	896	0	559	192	0	0
Std dev		0	0	0	0	0	3	0	2	1	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
RS-71		20	10	10	20	20	30	10	10	10	10	10
Mean		0	0	0	0	0	45	0	0	0	0	0
Std dev		0	0	0	0	0	1	0	0	0	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
RS-72		20	10	10	20	20	228	10	10	10	10	10
Mean		0	0	0	0	0	487	0	0	0	0	0
Std dev		0	0	0	0	0	1	0	0	0	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
SI-70		20	10	10	20	20	10	10	10	19	14	10
Mean		0	0	0	0	0	0	0	0	13	9	0
Std dev		0	0	0	0	0	0	0	0	2	1	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
SP-70		20	10	10	20	20	10	10	10	10	10	10
Mean		0	0	0	0	0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0	0	0	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
CR-70		20	10	10	20	20	60	10	10	16	10	10
Mean		0	0	0	0	0	112	0	0	8	0	0
Std dev		0	0	0	0	0	1	0	0	2	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5
CR-71		20	10	10	20	20	10	10	32	20	10	10
Mean		0	0	0	0	0	0	0	49	21	0	0
Std dev		0	0	0	0	0	0	0	1	1	0	0
Det. freq.	n=	5	5	5	5	5	5	5	5	5	5	5

TISSUE DATA FROM CONNEMONT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feine 10/01/84		Values in ppb wet weight									
HALOGENATED ETHERS		PHTHALATES									
FISH		bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl phthalate	di-n-butyl phthalate	di-n-octyl phthalate	diethyl phthalate
SURMARIES											
STATION											
BLAIR WW											
Mean	20	10	10	10	20	20	423	11	391	29	21
Std dev	0	0	0	0	0	0	185	3	854	58	37
Det. freq.	0	0	0	0	0	0	15	1	4	2	2
n	15	15	15	15	15	15	15	15	15	15	15
CITY WW											
Mean	20	10	10	10	20	20	276	33	10	208	10
Std dev	0	0	0	0	0	0	354	73	0	311	0
Det. freq.	0	0	0	0	0	0	5	1	0	7	0
n	10	10	10	10	10	10	10	10	10	10	10
HYLEBOS WW											
Mean	20	10	10	10	20	20	35	10	575	22	10
Std dev	0	0	0	0	0	0	66	0	454	32	5
Det. freq.	0	0	0	0	0	0	2	0	11	3	0
n	15	15	15	15	15	15	15	15	15	15	15
MIDDLE WW											
Mean	20	10	10	10	20	20	10	10	10	10	10
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
MILWAUKEE											
Mean	20	10	10	10	20	20	182	10	70	15	10
Std dev	0	0	0	0	0	0	52	0	134	12	0
Det. freq.	0	0	0	0	0	0	5	0	1	1	0
n	5	5	5	5	5	5	5	5	5	5	5
RUSTON SHORES											
Mean	20	10	10	10	20	20	255	10	117	39	10
Std dev	0	0	0	0	0	0	582	0	337	111	0
Det. freq.	0	0	0	0	0	0	5	0	2	1	0
n	15	15	15	15	15	15	15	15	15	15	15
SITCUH WW											
Mean	20	10	10	10	20	20	10	10	10	19	10
Std dev	0	0	0	0	0	0	0	0	0	13	9
Det. freq.	0	0	0	0	0	0	0	0	0	2	0
n	5	5	5	5	5	5	5	5	5	5	5
ST. PAUL WW											
Mean	20	10	10	10	20	20	10	10	10	10	10
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
ALL WATERWAYS											
Mean	20	10	10	10	20	20	194	13	425	49	12
Std dev	0	0	0	0	0	0	333	27	956	138	17
Det. freq.	0	0	0	0	0	0	32	2	18	16	3
n	75	75	75	75	75	75	75	75	75	75	75

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight											
HALOGENATED ETHERS		PHTHALATES											
FISH	STATION	bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl phthalate	di-n-butyl phthalate	di-n-octyl phthalate	diethyl phthalate	dimethyl phthalate	
REFERENCE AREA													
CARR INLET													
Mean		20	10	10	20	20	3	10	21	18	10	10	
Std dev		0	0	0	0	0	79	0	35	15	0	0	
Det. freq.		0	0	0	0	0	1	0	1	3	0	0	
n		10	10	10	10	10	10	10	10	10	10	10	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight										
HALOGENATED ETHERS		PHTHALATES										
CRAB SUMMARIES	STATION	bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl phthalate	di-n-butyl phthalate	di-n-octyl phthalate	diethyl phthalate	dimethyl phthalate
BL-72	Mean	20	10	10	20	20	10	10	10	10	10	10
	Std dev	-	-	-	-	-	-	-	-	-	-	-
	Det. freq.	0	0	0	0	0	0	0	0	0	0	0
	n	1	1	1	1	1	1	1	1	1	1	1
CL-70	Mean	20	10	10	20	20	93	10	10	10	10	10
	Std dev	0	0	0	0	0	144	0	0	0	0	0
	Det. freq.	0	0	0	0	0	1	0	0	0	0	0
	n	3	3	3	3	3	3	3	3	3	3	3
CL-72	Mean	20	10	10	20	20	10	10	100	10	10	10
	Std dev	0	0	0	0	0	0	0	127	0	0	0
	Det. freq.	0	0	0	0	0	0	0	1	0	0	0
	n	2	2	2	2	2	2	2	2	2	2	2
HY-71	Mean	20	10	10	20	20	10	10	2900	10	10	10
	Std dev	-	-	-	-	-	-	-	-	-	-	-
	Det. freq.	0	0	0	0	0	0	0	0	0	0	0
	n	1	1	1	1	1	1	1	1	1	1	1
MD-70	Mean	20	10	10	20	20	10	10	10	10	10	10
	Std dev	0	0	0	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0	0	0	0
	n	2	2	2	2	2	2	2	2	2	2	2
MI-70	Mean	20	10	10	20	20	28	10	10	10	10	10
	Std dev	0	0	0	0	0	40	0	0	0	0	0
	Det. freq.	0	0	0	0	0	1	0	0	0	0	0
	n	5	5	5	5	5	5	5	5	5	5	5
SI-70	Mean	20	10	10	20	20	10	10	10	10	10	10
	Std dev	0	0	0	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0	0	0	0
	n	4	4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight									
		HALOGENATED ETHERS									
CRAB	SUMMARIES	bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl phthalate	di-n-butyl phthalate	di-n-octyl phthalate	diethyl phthalate
STATION											
SP-70		20	10	10	20	20	10	10	10	10	10
Mean		-	-	-	-	-	-	-	-	-	-
Std dev		0	0	0	0	0	0	0	0	0	0
Det. freq.		1	1	1	1	1	1	1	1	1	1
CR-70		20	10	10	20	20	10	10	10	10	10
Mean		0	0	0	0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0	0	0	0
Det. freq.		3	3	3	3	3	3	3	3	3	3
CR-71		20	10	10	20	20	2323	10	938	85	10
Mean		0	0	0	0	0	4518	0	259	88	0
Std dev		0	0	0	0	0	3	0	4	2	0
Det. freq.		4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH		R.P. Feins	10/01/84		Values in ppb wet weight																		
		HALOGENATED ETHERS															PHTHALATES						
CRAB SUMMARIES	STATION	bis(2- chloro- ethyl)- ether	4-chloro- phenyl ether	4-bromo- phenyl ether	bis(2- chloro- isopro- pyl)- ether	bis(2- chloro- ethoxy)- methane	bis(2- ethyl- hexyl)- phtha- late	butyl benzyl phtha- late	di-n- butyl phtha- late	di-n- octyl phtha- late	diethyl phtha- late	dimethyl phtha- late											
	BLAKE WW	20	10	10	20	20	10	10	10	10	10	10											
	Mean	-	-	-	-	-	-	-	-	-	-	-											
	Std dev	0	0	0	0	0	0	0	0	0	0	0											
	Det. freq.	1	1	1	1	1	1	1	1	1	1	1											
	CITY WW	20	10	10	20	20	60	10	46	10	10	10											
	Mean	0	0	0	0	0	112	0	80	0	0	0											
	Std dev	0	0	0	0	0	1	0	1	0	0	0											
	Det. freq.	5	5	5	5	5	5	5	5	5	5	5											
	HYLESOS	20	10	10	20	20	10	10	2900	10	10	10											
	Mean	-	-	-	-	-	-	-	-	-	-	-											
	Std dev	0	0	0	0	0	0	0	0	0	0	0											
	Det. freq.	1	1	1	1	1	1	1	1	1	1	1											
	MIDDLE WW	20	10	10	20	20	10	10	10	10	10	10											
	Mean	0	0	0	0	0	0	0	0	0	0	0											
	Std dev	0	0	0	0	0	0	0	0	0	0	0											
	Det. freq.	2	2	2	2	2	2	2	2	2	2	2											
	MILWAUKEE WW	20	10	10	20	20	28	10	10	10	10	10											
	Mean	0	0	0	0	0	40	0	0	0	0	0											
	Std dev	0	0	0	0	0	1	0	0	0	0	0											
	Det. freq.	5	5	5	5	5	5	5	5	5	5	5											
	SITCUM WW	20	10	10	20	20	10	10	10	10	10	10											
	Mean	0	0	0	0	0	0	0	0	0	0	0											
	Std dev	0	0	0	0	0	0	0	0	0	0	0											
	Det. freq.	4	4	4	4	4	4	4	4	4	4	4											
	ST. PAUL WW	20	10	10	20	20	10	10	10	10	10	10											
	Mean	-	-	-	-	-	-	-	-	-	-	-											
	Std dev	0	0	0	0	0	0	0	0	0	0	0											
	Det. freq.	1	1	1	1	1	1	1	1	1	1	1											
	WATERWAYS	20	10	10	20	20	28	10	172	10	10	10											
	Mean	0	0	0	0	0	60	0	662	0	0	0											
	Std dev	0	0	0	0	0	2	0	2	0	0	0											
	Det. freq.	19	19	19	19	19	19	19	19	19	19	19											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH	R.P. Feins	10/01/84	Values in ppb wet weight												
HALOGENATED ETHERS			PHTHALATES												
CRAB	SUMMARIES	STATION	bis(2-chloro-ethyl)-ether	4-chloro-phenyl ether	4-bromo-phenyl ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	bis(2-ethyl-hexyl)-phthalate	butyl benzyl phthalate	di-n-butyl phthalate	di-n-octyl phthalate	diethyl phthalate	dimethyl phthalate		
REFERENCE AREA			20	10	10	20	20	1331	10	540	53	10	10		
CARR INLET			0	0	0	0	0	3426	0	528	74	0	0		
Mean			0	0	0	0	0	3	0	4	2	0	0		
Std dev			0	0	0	0	0	7	7	7	7	7	7		
Det. freq.			7	7	7	7	7	7	7	7	7	7	7		

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight			
FISH SUMMARIES	STATION	VOLATILE		VOLATILE	
		CHLORINATED CARBONYL COMPOUNDS		UNSATURATED VOLATILE ETHERS	
		AROMATIC HYDROCARBONS	2-chloro ethyl- chloro- vinyl- benzene acrolein acrylonitrile	2-chloro ethyl- vinyl- ether	
BL-70	Mean				
	Std dev				
	Det. freq.				
BL-71	Mean				
	Std dev				
	Det. freq.				
BL-72	Mean				
	Std dev				
	Det. freq.				
CI-70	Mean	5	100	100	100
	Std dev	0	0	0	0
	Det. freq.	0	0	0	0
	Det. freq.	4	4	4	4
CI-72	Mean				
	Std dev				
	Det. freq.				
HY-70	Mean				
	Std dev				
	Det. freq.				
HY-71	Mean	5	100	100	100
	Std dev	0	0	0	0
	Det. freq.	0	0	0	0
	Det. freq.	4	4	4	4
HY-72	Mean	5	100	100	100
	Std dev	0	0	0	0
	Det. freq.	0	0	0	0
	Det. freq.	4	4	4	4

TETRA TECH	R.P. Fines	10/01/84	Values in ppb wet weight
FISH SUMMARIES	VOLATILE	VOLATILE	UNSATURATED
	CHLORINATED	CARBONYL	COMPOUNDS
	ETHERS		
	2-chloro		
STATION	AROMATIC		
	HYDROCARBONS		
	chloro-		acrylon-
	benzene	acrolein	itrile
			vinyl-
			ether

MD-70
Mean
Std dev
Det. freq.

MI-70
Mean
Std dev
Det. freq.

RS-70
Mean
Std dev
Det. freq.

RS-71
Mean
Std dev
Det. freq.

MS-72
Mean
Std dev
Det. freq.

SI-70
Mean
Std dev
Det. freq.

SP-70
Mean
Std dev
Det. freq.

CR-70
Mean
Std dev
Det. freq.

CR-71	Mean	Std dev	Det. freq.
1	1.00	0.00	1
2	1.00	0.00	1
3	1.00	0.00	1
4	1.00	0.00	1
5	1.00	0.00	1
6	1.00	0.00	1
7	1.00	0.00	1
8	1.00	0.00	1
9	1.00	0.00	1
10	1.00	0.00	1
11	1.00	0.00	1
12	1.00	0.00	1
13	1.00	0.00	1
14	1.00	0.00	1
15	1.00	0.00	1
16	1.00	0.00	1
17	1.00	0.00	1
18	1.00	0.00	1
19	1.00	0.00	1
20	1.00	0.00	1
21	1.00	0.00	1
22	1.00	0.00	1
23	1.00	0.00	1
24	1.00	0.00	1
25	1.00	0.00	1
26	1.00	0.00	1
27	1.00	0.00	1
28	1.00	0.00	1
29	1.00	0.00	1
30	1.00	0.00	1
31	1.00	0.00	1
32	1.00	0.00	1
33	1.00	0.00	1
34	1.00	0.00	1
35	1.00	0.00	1
36	1.00	0.00	1
37	1.00	0.00	1
38	1.00	0.00	1
39	1.00	0.00	1
40	1.00	0.00	1
41	1.00	0.00	1
42	1.00	0.00	1
43	1.00	0.00	1
44	1.00	0.00	1
45	1.00	0.00	1
46	1.00	0.00	1
47	1.00	0.00	1
48	1.00	0.00	1
49	1.00	0.00	1
50	1.00	0.00	1
51	1.00	0.00	1
52	1.00	0.00	1
53	1.00	0.00	1
54	1.00	0.00	1
55	1.00	0.00	1
56	1.00	0.00	1
57	1.00	0.00	1
58	1.00	0.00	1
59	1.00	0.00	1
60	1.00	0.00	1
61	1.00	0.00	1
62	1.00	0.00	1
63	1.00	0.00	1
64	1.00	0.00	1
65	1.00	0.00	1
66	1.00	0.00	1
67	1.00	0.00	1
68	1.00	0.00	1
69	1.00	0.00	1
70	1.00	0.00	1
71	1.00	0.00	1
72	1.00	0.00	1
73	1.00	0.00	1
74	1.00	0.00	1
75	1.00	0.00	1
76	1.00	0.00	1
77	1.00	0.00	1
78	1.00	0.00	1
79	1.00	0.00	1
80	1.00	0.00	1
81	1.00	0.00	1
82	1.00	0.00	1
83	1.00	0.00	1
84	1.00	0.00	1
85	1.00	0.00	1
86	1.00	0.00	1
87	1.00	0.00	1
88	1.00	0.00	1
89	1.00	0.00	1
90	1.00	0.00	1
91	1.00	0.00	1
92	1.00	0.00	1
93	1.00	0.00	1
94	1.00	0.00	1
95	1.00	0.00	1
96	1.00	0.00	1
97	1.0		

100

[illegible]

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight			
FISH SUMMARIES	STATION	VOLATILE VOLATILE UNSATURATED		VOLATILE	
		CHLORINATED CARBONYL COMPOUNDS		ETHERS	
		AROMATIC	HYDROCARBONS	2-chloro	ethyl-
		chloro-	acrolein	acrylon-	vinyl-
		benzene		itrile	ether
BLAIR WW					
Mean					
Std dev					
Det. freq.	n=				
CITY WW					
Mean	5	100	100	100	100
Std dev	0	0	0	0	0
Det. freq.	0	0	0	0	0
	4	4	4	4	4
HYLEBOS WW					
Mean	5	100	100	100	100
Std dev	0	0	0	0	0
Det. freq.	0	0	0	0	0
	8	8	8	8	8
MIDDLE WW					
Mean					
Std dev					
Det. freq.	n=				
MILWAUKEE					
Mean					
Std dev					
Det. freq.	n=				
RUSTON SHORES					
Mean					
Std dev					
Det. freq.	n=				
SITCUM WW					
Mean					
Std dev					
Det. freq.	n=				
ST. PAUL WW					
Mean	5	100	100	100	100
Std dev	0	0	0	0	0
Det. freq.	0	0	0	0	0
	4	4	4	4	4
ALL WATERWAYS					
Mean	5	100	100	100	100
Std dev	0	0	0	0	0
Det. freq.	0	0	0	0	0
	16	16	16	16	16

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
 VOLATILE VOLATILE UNSATURATED VOLATILE
 CHLORINATED CARBONYL COMPOUNDS ETHERS
 AROMATIC 2-chloro
 FISH HYDROCARBONS ethyl-
 SUMMARIES chloro- acrylon-
 STATION benzene acrolein itrole ether

REFERENCE AREA

CARR INLET
 Mean 5 100 100 100
 Std dev 0 0 0 0
 Det. freq. 0 0 0 0
 n= 4 4 4 4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

FISH SUMMARIES	benzoic acid	2-methyl phenol	4-methyl phenol	2,4,5- tri- chloro phenol	aniline	benzyl alcohol	4- chloro- aniline	dibenzo- furan	2- methyl- naph- thalene	2- nitro- aniline	3- nitro- aniline
BL-70	50	20	20	20	40	20	40	10	10	100	100
Mean											
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
BL-71	50	20	20	20	40	20	40	10	10	100	100
Mean											
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
BL-72	50	28	28	28	40	20	40	10	10	100	100
Mean											
Std dev	0	11	11	11	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
CI-70	50	20	20	20	40	20	40	10	10	100	100
Mean											
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
CI-72	50	24	24	24	40	20	40	10	10	100	100
Mean											
Std dev	0	9	9	9	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
HY-70	50	20	20	20	40	20	40	10	10	100	100
Mean											
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
HY-71	50	20	20	20	40	20	40	10	10	100	100
Mean											
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
HY-72	50	20	20	20	40	20	40	10	10	100	100
Mean											
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

FISH SUMMARIES	benzoic acid	2-methyl phenol	4-methyl phenol	2,4,5- tri- chloro phenol	aniline	benzyl alcohol	4- chloro- aniline	dibenz- furan	2-methyl- naph- thalene	2-nitro- aniline	3-nitro- aniline
MD-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
MI-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RS-70	50	32	32	32	40	20	40	10	10	100	100
Mean	0	11	11	11	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RS-71	50	32	32	32	40	20	40	10	10	100	100
Mean	0	11	11	11	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RS-72	50	24	24	24	40	20	40	10	10	100	100
Mean	0	9	9	9	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
SI-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
SP-70	50	24	24	24	40	20	40	10	10	100	100
Mean	0	9	9	9	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
CR-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
CR-71	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH	R.P. Feins	10/01/84	Values in ppb wet weight
HAZARDOUS SUBSTANCES			

[illegible]

TETRA TECH	R.P. Feins	10/01/84	Values in ppb wet weight
HAZARDOUS SUBSTANCES			

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAB SUMMARIES	benzoic acid	2-methyl phenol	4-methyl phenol	2,4,5- tri- chloro phenol	aniline	benzyl alcohol	4- chloro- aniline	dibenzo- furan	2- methyl- naph- thalene	2- nitro- aniline	3- nitro- aniline
BL-72	50	20	20	20	40	20	40	10	10	100	100
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
CI-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3	3	3	3	3
n=											
CI-72	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2	2
n=											
HY-71	50	20	20	20	40	20	40	10	10	100	100
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
MD-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2	2
n=											
MI-70	60	20	20	20	40	20	40	10	10	100	100
Mean	22	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
SI-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4	4
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAB SUNNARIES	benzoic acid	2-methyl phenol	4-methyl phenol	2,4,5- tri- chloro phenol	aniline	benzyl alcohol	4- chloro- aniline	dibenzofuran	2- methyl- naphthalene	2- nitro- aniline	3- nitro- aniline
SP-70	50	20	20	20	40	20	40	10	10	100	100
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
CR-70	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3	3	3	3	3
n=											
CR-71	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4	4
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAB SUMMARIES	benzoic acid	2-methyl phenol	4-methyl phenol	2,4,5- tri- chloro phenol	aniline	benzyl alcohol	4- chloro- aniline	dibenzoo- furan	2-methyl- naph- thalene	2- nitro- aniline	3- nitro- aniline
BLAIR WW	50	20	20	20	40	20	40	10	10	100	100
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
CITY WW	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HYLEOS	50	20	20	20	40	20	40	10	10	100	100
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
MIDDLE WW	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2	2
n=											
MILWAUKEE WW	60	20	20	20	40	20	40	10	10	100	100
Mean	22	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
SITCUM WW	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4	4
n=											
ST. PAUL WW	50	20	20	20	40	20	40	10	10	100	100
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
WATERWAYS	53	20	20	20	40	20	40	10	10	100	100
Mean	11	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	19	19	19	19	19	19	19	19	19	19	19
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAB SUMMARIES	benzoic acid	2-methyl phenol	4-methyl phenol	2,4,5- tri- chloro phenol	aniline	benzyl alcohol	4- chloro- aniline	dibenzo- furan	2- methyl- naph- thalene	2- nitro- aniline	3- nitro- aniline
STATION											
REFERENCE AREA											
CARR INLET	50	20	20	20	40	20	40	10	10	100	100
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	7	7	7	7	7	7	7	7	7	7	7

TISSUE DATA FROM CONNEMMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight							MISCELLANEOUS OXYGENATED COMPOUNDS	
ORGANO-NITROGEN COMPOUNDS		2,4-di- nitro- toluene	2,6-di- nitro- toluene	1,2-di- phenyl- hydraz- ine	nitro- benzene	M-nitro- sodi- phenyl- amine	M-nitro- sodi- propyl- amine	Iso- phorone		
FISH SUMMARIES	BL-70	20	20	10	20	10	20	10		
	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
STATION	Det. freq.	0	0	0	0	0	0	0		
	n=	5	5	5	5	5	5	5		
	BL-71	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		
	BL-72	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		
	CI-70	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		
	CI-72	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		
	HY-70	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		
	HY-71	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		
	HY-72	20	20	10	20	10	20	10		
STATION	Mean	0	0	0	0	0	0	0		
	Std dev	0	0	0	0	0	0	0		
	Det. freq.	0	0	0	0	0	0	0		
STATION	n=	5	5	5	5	5	5	5		

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

**TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
ORGANONITROGEN COMPOUNDS**

FISH SUMMARIES		ORGANONITROGEN COMPOUNDS					MISCELLANEOUS OXYGENATED COMPOUNDS		
STATION		2,4-di- nitro- toluene	2,6-di- nitro- toluene	1,2-di- phenyl- hydraz- ine	nitro- benzene	N-nitro- sodi- phenyl- amine	N-nitro- sodi- propyl- amine	Iso- phorone	
MD-70									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
MI-70									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
RS-70									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
RS-71									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
RS-72									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
SI-70									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
SP-70									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
CR-70									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
CR-71									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	
CR-72									
Mean		20	20	10	20	10	20	10	
Std dev		0	0	0	0	0	0	0	
Det. freq.		0	0	0	0	0	0	0	
n ^m		5	5	5	5	5	5	5	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight						
		ORGANONITROGEN COMPOUNDS						
FISH SUMMARIES		2,4-di-nitro-toluene	2,6-di-nitro-toluene	1,2-di-phenyl-hydra-zine	nitro-benzene	M-nitro-sodi-phenyl-amine	M-nitro-sodi-propyl-amine	MISCELLANEOUS OXYGENATED COMPOUNDS Iso-phorone
STATION								
BLAIR WW								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		15	15	15	15	15	15	15
CITY WW								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		10	10	10	10	10	10	10
HYLEBOS WW								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		15	15	15	15	15	15	15
MIDDLE WW								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		5	5	5	5	5	5	5
MILWAUKEE								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		5	5	5	5	5	5	5
RUSTON SHORES								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		5	5	5	5	5	5	5
SITCUM WW								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		15	15	15	15	15	15	15
ST. PAUL WW								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		5	5	5	5	5	5	5
ALL WATERWAYS								
Mean		20	20	10	20	10	20	10
Std dev		0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0
n=		75	75	75	75	75	75	75

**TETRA TECH R.P. FeIns 10/01/84 Values in ppb wet weight
ORGANONITROGEN COMPOUNDS**

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight							MISCELLANEOUS OXYGENATED COMPOUNDS	
		ORGANONITROGEN COMPOUNDS								
CRAB SUMMARIES		2,4-di- nitro- toluene	2,6-di- nitro- toluene	1,2-di- phenyl- hydra- zine	nitro- benzene	N-nitro- sodi- phenyl- amine	N-nitro- sodi- propyl- amine	Iso- phorone		
STATION										
BL-72		20	20	10	20	10	20	10		
Mean		-	-	-	-	-	-	-		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	1	1	1	1	1	1	1		
CI-70		20	20	10	20	10	20	10		
Mean		0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	3	3	3	3	3	3	3		
CI-72		20	20	10	20	10	20	10		
Mean		0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	2	2	2	2	2	2	2		
HY-71		20	20	10	20	10	20	10		
Mean		-	-	-	-	-	-	-		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	1	1	1	1	1	1	1		
MD-70		20	20	10	20	10	20	10		
Mean		0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	2	2	2	2	2	2	2		
MI-70		20	20	10	20	10	20	10		
Mean		0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	5	5	5	5	5	5	5		
SI-70		20	20	10	20	10	20	10		
Mean		0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0		
Det. freq.	n=	4	4	4	4	4	4	4		

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight						
		ORGANONITROGEN COMPOUNDS						
CRAB		2,4-di-	2,6-di-	1,2-di-	nitro-	N-nitro-	N-nitro-	MISCELLANEOUS
SUMMARIES		nitro-	nitro-	phenyl-	benzene	sodi-	sodi-	OXYGENATED
STATION		toluene	toluene	zine		amine	propyl-	COMPOUNDS
							amine	iso-
SP-70								phorone
Mean	20	20	20	10	20	10	20	10
Std dev	-	-	-	-	-	-	-	-
Det. freq.	0	0	0	0	0	0	0	0
n=	1	1	1	1	1	1	1	1
CR-70								
Mean	20	20	20	10	20	10	20	10
Std dev	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0
n=	3	3	3	3	3	3	3	3
CR-71								
Mean	20	20	20	10	20	10	20	10
Std dev	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0
n=	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight						
		ORGANONITROGEN COMPOUNDS					MISCELLANEOUS OXYGENATED COMPOUNDS	
CRAB SUMMARIES		2,4-di-nitro-toluene	2,6-di-nitro-toluene	1,2-di-phenyl-hydra-zine	nitro-benzene	M-nitro-phenyl-amine	M-nitro-sodi-propyl-amine	Iso-phorone
STATION								
BLAIN WW		20	20	10	20	10	20	10
Mean		-	-	-	-	-	-	-
Std dev		0	0	0	0	0	0	0
Det. freq.		1	1	1	1	1	1	1
DP								
CITY WW		20	20	10	20	10	20	10
Mean		0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0
Det. freq.		5	5	5	5	5	5	5
DP								
HYLEBOS		20	20	10	20	10	20	10
Mean		-	-	-	-	-	-	-
Std dev		0	0	0	0	0	0	0
Det. freq.		1	1	1	1	1	1	1
DP								
MIDDLE WW		20	20	10	20	10	20	10
Mean		0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0
Det. freq.		2	2	2	2	2	2	2
DP								
MILWAUKEE WW		20	20	10	20	10	20	10
Mean		0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0
Det. freq.		5	5	5	5	5	5	5
DP								
SITCUM WW		20	20	10	20	10	20	10
Mean		0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0
Det. freq.		4	4	4	4	4	4	4
DP								
ST. PAUL WW		20	20	10	20	10	20	10
Mean		-	-	-	-	-	-	-
Std dev		0	0	0	0	0	0	0
Det. freq.		1	1	1	1	1	1	1
DP								
WATERWAYS		20	20	10	20	10	20	10
Mean		0	0	0	0	0	0	0
Std dev		0	0	0	0	0	0	0
Det. freq.		19	19	19	19	19	19	19
DP								

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight					MISCELLANEOUS OXYGENATED COMPOUNDS
ORGANONITROGEN COMPOUNDS							
CRAB SUMMARIES	2,4-di- nitro- toluene	2,6-di- nitro- toluene	1,2-di- phenyl- hydraz- ine	M-nitro- sodi- phenyl- amine	M-nitro- sodi- propyl- amine	Iso- phorone	
STATION							
REFERENCE AREA							
CARR INLET	20	20	10	20	20	10	
Mean	0	0	0	0	0	0	
Std dev	0	0	0	0	0	0	
Det. freq.	7	7	7	7	7	7	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84

HIGH MOLECULAR WEIGHT PAH

FISH SUMMARIES STATION	fluor- anthene	benzo(a) anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	dibenzo- (a,h)an- thracene	indeno- (1,2,3-cd) pyrene	pyrene
BL-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
BL-71	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
BL-72	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
CI-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
CI-72	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
HY-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
HY-71	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
HY-72	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84

HIGH MOLECULAR WEIGHT PAH

FISH SUMMARIES STATION	fluor- anthene	benzo(a)- anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	dfenzo- (a,h)an- thracene	indeno- (1,2,3-cd) pyrene	pyrene
MD-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
MI-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
MS-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
MS-71	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
MS-72	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
SI-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
SP-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
CR-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
CR-71	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										
CR-71	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
n=										

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84

HIGH MOLECULAR WEIGHT PAH

FISH SUMMARIES STATION	fluor- anthene	benzo(a) anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	dibenzo- (a,h)an- thracene	indeno- (1,2,3-cd) pyrene	pyrene
BLAIR WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15
CITY WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	10	10	10	10	10	10	10	10	10	10
NYLEBOS WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15
MIDDLE WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15
MILWAUKEE	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5
MILWAUKEE	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5
AUSTON SHORES	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15
SITCUM WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5
ST. PAUL WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5
ALL WATERWAYS	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0
n=	75	75	75	75	75	75	75	75	75	75

TETRA TECH R.P. Peins 10/01/84

HIGH MOLECULAR WEIGHT PAH

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84

HIGH MOLECULAR WEIGHT PAH

CRAB SUMMARIES STATION	fluor- anthene	benzo(a) anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	dibenzo- (a,h)an- thracene	indeno- (1,2,3-cd) pyrene	pyrene
BL-72	10	10	10	10	10	10	10	10	10	10
Mean	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1
CI-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3	3	3	3
CI-72	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2
NY-71	10	10	10	10	10	10	10	10	10	10
Mean	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1
MD-70	29	10	10	10	10	10	10	10	10	10
Mean	27	0	0	0	0	0	0	0	0	0
Std dev	1	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2
MI-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
SI-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feine 10/01/84

HIGH MOLECULAR WEIGHT PAH

CRAB SUMMARIES STATION	fluor- anthene	benzo(a) anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	dibenzo- (a,h)an- thracene	indeno- (1,2, 3-cd) pyrene	pyrene
SP-70	10	10	10	10	10	10	10	10	10	10
Mean	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1
n										
CR-70	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3	3	3	3
n										
CR-71	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4
n										

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84

HIGH MOLECULAR WEIGHT PAH

CRAB SUMMARIES STATION	fluor- anthene	benzo(a) anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	dibenzo- (a,h)an- thracene	indeno- (1,2,3-cd) pyrene	pyrene
BLAIR WW	10	10	10	10	10	10	10	10	10	10
Mean	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1
CITY WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
HYLESOS	10	10	10	10	10	10	10	10	10	10
Mean	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1
MIDDLE WW	29	10	10	10	10	10	10	10	10	10
Mean	27	0	0	0	0	0	0	0	0	0
Std dev	1	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2
HILWAUKEE WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5
SITCUH WW	10	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4
ST. PAUL WW	10	10	10	10	10	10	10	10	10	10
Mean	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1
WATERWAYS	12	10	10	10	10	10	10	10	10	10
Mean	9	0	0	0	0	0	0	0	0	0
Std dev	1	0	0	0	0	0	0	0	0	0
Det. freq.	19	19	19	19	19	19	19	19	19	19

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84

HIGH MOLECULAR WEIGHT PAH

CRAB SUMMARIES STATION	fluor- anthene	benzo(a) anthra- cene	benzo(a) pyrene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	chrysene	benzo- (ghi) perylene	di benzo- (a,h)an- thracene	indeno- (1,2,3-cd) pyrene
REFERENCE AREA									
CARR INLET	10	10	10	10	10	10	10	10	10
Mean	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0
Det. freq.	7	7	7	7	7	7	7	7	7

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84		Values in ppb wet weight									
PHENOLS		SUBSTITUTED PHENOLS									
FISH SUMMARIES	phenol	2,4-di-methyl-phenol	2,4,6-tri-chloro-phenol	p-chloro-cresol	2-chloro-phenol	2,4-di-chloro-phenol	2-nitro-phenol	4-nitro-phenol	2,4-di-nitro-phenol	4,6-di-nitro-cresol	penta-chloro-phenol
BL-70	20	20	20	20	20	20	20	100	100	25	44
Mean	0	0	0	0	0	0	0	0	0	0	9
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
BL-71	20	20	20	20	20	20	20	100	100	25	136
Mean	0	0	0	0	0	0	0	0	0	0	193
Std dev	0	0	0	0	0	0	0	0	0	0	1
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
BL-72	28	28	28	20	28	28	28	140	140	25	72
Mean	11	11	11	0	11	11	11	55	55	0	18
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
CI-70	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
CI-72	24	24	24	20	24	24	24	120	120	25	80
Mean	9	9	9	0	9	9	9	45	45	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-70	20	20	20	20	20	20	20	100	100	25	72
Mean	0	0	0	0	0	0	0	0	0	0	18
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-71	20	20	20	24	24	24	20	100	100	25	80
Mean	0	0	0	9	9	9	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-72	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-72	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84
PHENOLS Values in ppb wet weight
SUBSTITUTED PHENOLS

FISH SUMMARIES STATION	phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro -a- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol
MD-70											
Mean	20	20	20	20	20	20	24	120	120	30	80
Std dev	0	0	0	0	0	0	9	45	45	11	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
MI-70											
Mean	20	20	20	20	20	20	20	100	100	25	56
Std dev	0	0	0	0	0	0	0	0	0	0	22
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
RS-70											
Mean	32	32	32	32	32	32	32	160	160	40	64
Std dev	11	11	11	11	11	11	11	55	55	14	22
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
RS-71											
Mean	32	32	32	32	32	32	32	160	160	40	72
Std dev	11	11	11	11	11	11	11	55	55	14	18
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
RS-72											
Mean	24	24	24	20	24	24	24	120	120	25	56
Std dev	9	9	9	0	9	9	9	45	45	0	22
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
SI-70											
Mean	20	20	20	20	20	20	24	120	120	30	56
Std dev	0	0	0	0	0	0	9	45	45	11	22
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
SP-70											
Mean	24	24	24	24	24	24	24	120	120	30	64
Std dev	9	9	9	9	9	9	9	45	45	11	22
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
CR-70											
Mean	20	20	20	20	20	20	20	100	100	25	56
Std dev	0	0	0	0	0	0	0	0	0	0	22
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5
CR-71											
Mean	20	20	20	20	20	20	20	100	100	25	80
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n	5	5	5	5	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84		Values in ppb wet weight SUBSTITUTED PHENOLS															
FISH SUMMARIES STATION		phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro -m- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol					
BLAIR WW																	
Mean	23	23	23	23	20	23	23	23	113	113	25	84					
Std dev	7	7	7	7	0	7	7	7	35	35	0	111					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	1					
n=	15	15	15	15	15	15	15	15	15	15	15	15					
CITY WW																	
Mean	22	22	22	22	20	22	22	22	110	110	25	80					
Std dev	6	6	6	6	0	6	6	6	32	32	0	0					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	10	10	10	10	10	10	10	10	10	10	10	10					
HYLEROS WW																	
Mean	20	20	20	21	21	21	21	20	100	100	25	77					
Std dev	0	0	0	5	5	5	5	0	0	0	0	10					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	15	15	15	15	15	15	15	15	15	15	15	15					
MIDDLE WW																	
Mean	20	20	20	20	20	20	20	24	120	120	30	80					
Std dev	0	0	0	0	0	0	0	9	45	45	11	45					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	5	5	5	5	5	5	5	5	5	5	5	5					
MILWAUKEE																	
Mean	20	20	20	20	20	20	20	20	100	100	25	56					
Std dev	0	0	0	0	0	0	0	0	0	0	0	22					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	5	5	5	5	5	5	5	5	5	5	5	5					
RUSTON SHORES																	
Mean	29	29	29	29	28	29	29	29	147	147	35	64					
Std dev	10	10	10	10	10	10	10	10	52	52	13	20					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	15	15	15	15	15	15	15	15	15	15	15	15					
SITCUM WW																	
Mean	20	20	20	20	20	20	20	24	120	120	30	56					
Std dev	0	0	0	0	0	0	0	9	45	45	11	22					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	5	5	5	5	5	5	5	5	5	5	5	5					
ST. PAUL WW																	
Mean	24	24	24	24	24	24	24	24	120	120	30	64					
Std dev	9	9	9	9	9	9	9	9	45	45	11	22					
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0					
n=	5	5	5	5	5	5	5	5	5	5	5	5					
ALL WATERWAYS																	
Mean	23	23	23	22	22	23	23	23	117	117	28	73					
Std dev	7	7	7	6	6	7	7	8	38	38	8	51					
Det. freq.	0	0	0	0	0	0	0	0	0	0	1	0					
n=	75	75	75	75	75	75	75	75	75	75	75	75					

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84		Values in ppb wet weight									
PHENOLS		SUBSTITUTED PHENOLS									
FISH SUMMARIES STATION	phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro -m- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol
		20	20	20	20	20	20	100	100	25	68
Mean	0	0	0	0	0	0	0	0	0	0	19
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	10	10	10	10	10	10	10	10	10	10	10
n=											
REFERENCE AREA											
CARR INLET											
Mean											
Std dev											
Det. freq.											
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84 Values in ppb wet weight
PHENOLS SUBSTITUTED PHENOLS

CRAB SUMMARIES STATION	phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro- -m- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol
BL-72	20	20	20	20	20	20	20	100	100	25	40
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
CI-70	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3	3	3	3	3
n=											
CI-72	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2	2
n=											
HY-71	20	20	20	20	20	20	20	100	100	25	80
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
MD-70	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2	2
n=											
MI-70	36	20	20	20	20	20	20	100	100	25	40
Mean	9	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
SI-70	20	20	20	20	20	20	20	100	100	25	80
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4	4
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84		Values in ppb wet weight									
PHENOLS		SUBSTITUTED PHENOLS									
CRAB SUMMARIES STATION	phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro -m- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol
		20	20	20	20	20	40	200	200	50	80
SP-70											
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
CR-70											
Mean	20	20	20	20	20	20	20	100	100	25	80
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	3	3	3	3	3	3	3	3	3	3	3
CR-71											
Mean	25	20	20	20	20	20	20	100	100	25	80
Std dev	10	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	4	4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Feins 10/01/84 PHENOLS		Values in ppb wet weight SUBSTITUTED PHENOLS										
CRAB SUMMARIES STATION	phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro -m- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol	
BLAIR WW	20	20	20	20	20	20	20	100	100	25	40	
Mean	-	-	-	-	-	-	-	-	-	-	-	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	1	1	1	1	1	1	1	1	1	1	1	
CITY WW	20	20	20	20	20	20	20	100	100	25	80	
Mean	0	0	0	0	0	0	0	0	0	0	0	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	5	5	5	5	5	5	5	5	5	5	5	
HYLEBOS	20	20	20	20	20	20	20	100	100	25	80	
Mean	-	-	-	-	-	-	-	-	-	-	-	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	1	1	1	1	1	1	1	1	1	1	1	
MIDDLE WW	20	20	20	20	20	20	20	100	100	25	80	
Mean	0	0	0	0	0	0	0	0	0	0	0	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	2	2	2	2	2	2	2	2	2	2	2	
MILWAUKEE WW	36	20	20	20	20	20	20	100	100	25	40	
Mean	0	0	0	0	0	0	0	0	0	0	0	
Std dev	9	0	0	0	0	0	0	0	0	0	0	
Det. freq.	5	5	5	5	5	5	5	5	5	5	5	
SITCUM WW	20	20	20	20	20	20	20	100	100	25	80	
Mean	0	0	0	0	0	0	0	0	0	0	0	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	4	4	4	4	4	4	4	4	4	4	4	
ST. PAUL WW	20	20	20	20	20	20	40	200	200	50	80	
Mean	-	-	-	-	-	-	-	-	-	-	-	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	1	1	1	1	1	1	1	1	1	1	1	
WATERWAYS	24	20	20	20	20	20	21	105	105	26	67	
Mean	8	0	0	0	0	0	5	23	23	6	19	
Std dev	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	19	19	19	19	19	19	19	19	19	19	19	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R. Felms 10/01/84		Values in ppb wet weight SUBSTITUTED PHENOLS											
CRAB SUMMARIES STATION	phenol	2,4-di- methyl- phenol	2,4,6- tri- chloro- phenol	p-chloro -m- cresol	2- chloro- phenol	2,4-di- chloro- phenol	2-nitro- phenol	4-nitro- phenol	2,4-di- nitro- phenol	4,6-di- nitro-o- cresol	penta- chloro- phenol		
		20	20	20	20	20	20	20	100	100	25	80	
Mean	23	20	20	20	20	20	20	20	100	100	25	80	
Std dev	8	0	0	0	0	0	0	0	0	0	0	0	
Det. freq.	0	0	0	0	0	0	0	0	0	0	0	0	
	7	7	7	7	7	7	7	7	7	7	7	7	
REFERENCE AREA													
CARR INLET													

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES

FISH SUMMARIES	tetra- chloro- methane	1,2-di- chloro- ethane	1,1,1- tri- chloro- ethane	1,1-di- chloro- ethane	1,1,2- tri- chloro- ethane	1,1,2,2- tetra- chloro- ethane	chloro- ethane	chloro- form	1,2-di- chloro- propane	chloro- methane	bromo- methane
STATION											
BL-70											
Mean											
Std dev											
Det. freq.											
n=											
BL-71											
Mean											
Std dev											
Det. freq.											
n=											
BL-72											
Mean											
Std dev											
Det. freq.											
n=											
CI-70											
Mean											
Std dev											
Det. freq.											
n=											
CI-72											
Mean											
Std dev											
Det. freq.											
n=											
HY-70											
Mean											
Std dev											
Det. freq.											
n=											
HY-71											
Mean											
Std dev											
Det. freq.											
n=											
HY-72											
Mean											
Std dev											
Det. freq.											
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES

FISH SUMMARIES	tetra- chloro- methane	1,2-di- chloro- ethane	1,1,1- tri- chloro- ethane	1,1-di- chloro- ethane	1,1,2- tri- chloro- ethane	1,1,2,2- tetra- chloro- ethane	chloro- ethane	chloro- form	1,2-di- chloro- propane	chloro- methane	bromo- methane
MD-70											
Mean											
Std dev											
Det. freq.											
MI-70											
Mean											
Std dev											
Det. freq.											
RS-70											
Mean											
Std dev											
Det. freq.											
RS-71											
Mean											
Std dev											
Det. freq.											
RS-72											
Mean											
Std dev											
Det. freq.											
SI-70											
Mean											
Std dev											
Det. freq.											
SP-70											
Mean											
Std dev											
Det. freq.											
CR-70											
Mean											
Std dev											
Det. freq.											
CR-71											
Mean											
Std dev											
Det. freq.											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES

FISH SUNNARIES STATION	tetra- chloro- methane	1,2-di- chloro- ethane	1,1,1- tri- chloro- ethane	1,1-di- chloro- ethane	1,1,2- tri- chloro- ethane	1,1,2,2- tetra- chloro- ethane	chloro- ethane	chloro- form	1,2-di- chloro- propane	chloro- methane	bromo- methane
BLAIR WW											
Mean											
Std dev											
Det. freq.											
CITY WW											
Mean	5	10	5	5	5	5	10	5	10	10	10
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
HYLBOS WW											
Mean	5	10	5	5	5	5	10	5	10	10	10
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
MIDDLE WW											
Mean	8	8	8	8	8	8	8	8	8	8	8
Std dev											
Det. freq.											
MILWAUKEE											
Mean											
Std dev											
Det. freq.											
RUSTON SHORES											
Mean											
Std dev											
Det. freq.											
SITCUM WW											
Mean											
Std dev											
Det. freq.											
ST. PAUL WW											
Mean	5	10	5	5	5	5	10	5	10	10	10
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
ALL WATERWAYS											
Mean	4	4	4	4	4	4	4	4	4	4	4
Std dev	5	10	5	5	5	5	10	5	10	10	10
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
ALL WATERWAYS											
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
ALL WATERWAYS											
Mean	16	16	16	16	16	16	16	16	16	16	16
Std dev											
Det. freq.											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOCENATED ALKANES

FISH SUMMARIES	tetra- chloro- methane	1,2-di- chloro- ethane	1,1,1- tri- chloro- ethane	1,1-di- chloro- ethane	1,1,2- tri- chloro- ethane	1,1,2,2- tetra- chloro- ethane	chloro- ethane	chloro- form	1,2-di- chloro- propane	chloro- methane	bromo- methane
STATION											
REFERENCE AREA											
CARR INLET											
Mean	5	10	5	5	5	5	10	5	10	10	10
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	4	4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES

FISH SUMMARIES STATION	bromo- form	di- chloro- bromo- methane	chloro- dibromo- methane	fluoro- tri- chloro- methane	dichloro di- fluoro methane
BL-70 Mean					
Std dev					
Det. freq. n=					
BL-71 Mean					
Std dev					
Det. freq. n=					
BL-72 Mean					
Std dev					
Det. freq. n=					
CI-70 Mean	10	3	5	28	10
Std dev	0	0	0	35	0
Det. freq. n=	0	0	0	3	0
	4	4	4	4	4
CI-72 Mean					
Std dev					
Det. freq. n=					
HY-70 Mean					
Std dev					
Det. freq. n=					
HY-71 Mean	10	3	5	6	10
Std dev	0	0	0	2	0
Det. freq. n=	0	0	0	1	0
	4	4	4	4	4
HY-72 Mean	10	3	5	5	10
Std dev	0	0	0	0	0
Det. freq. n=	0	0	0	0	0
	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES

FISH SUMMARIES	bromo- form	di- chloro- bromo- methane	chloro- dibromo- methane	fluoro- tri- chloro- methane	dichloro di- fluoro methane
STATION					
MD-70					
Mean					
Std dev					
Det. freq.					
n=					
MI-70					
Mean					
Std dev					
Det. freq.					
n=					
RS-70					
Mean					
Std dev					
Det. freq.					
n=					
RS-71					
Mean					
Std dev					
Det. freq.					
n=					
RS-72					
Mean					
Std dev					
Det. freq.					
n=					
SI-70					
Mean					
Std dev					
Det. freq.					
n=					
SP-70					
Mean	10	5	5	6	10
Std dev	0	0	0	1	0
Det. freq.	0	0	0	2	0
n=	4	4	4	4	4
CR-70					
Mean					
Std dev					
Det. freq.					
n=					
CR-71					
Mean	10	5	5	95	10
Std dev	0	0	0	177	0
Det. freq.	0	0	0	2	0
n=	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES

FISH SUMMARIES									
STATION	bromo- form	di- chloro- bromo- methane	chloro- dibromo- methane	fluoro- tri- chloro- methane	dichloro di- fluoro methane				
BLAIR WW									
Mean									
Std dev									
Det. freq.									
CITY WW									
Mean	10	5	5	28	10				
Std dev	0	0	0	35	0				
Det. freq.	0	0	0	3	0				
HYLENOS WW									
Mean	4	4	4	4	4				
Std dev	10	5	5	5	10				
Det. freq.	0	0	0	1	0				
MIDDLE WW									
Mean	8	8	8	8	8				
Std dev									
Det. freq.									
MILWAUKEE									
Mean									
Std dev									
Det. freq.									
RUSTON SHORES									
Mean									
Std dev									
Det. freq.									
SITCUM WW									
Mean									
Std dev									
Det. freq.									
ST. PAUL WW									
Mean	10	5	5	6	10				
Std dev	0	0	0	1	0				
Det. freq.	0	0	0	2	0				
ALL WATERWAYS									
Mean	4	4	4	4	4				
Std dev	10	5	5	11	10				
Det. freq.	0	0	0	19	0				
ALL WATERWAYS									
Mean	0	0	0	6	0				
Std dev	0	0	0	6	0				
Det. freq.	0	0	0	6	0				
ALL WATERWAYS									
Mean	16	16	16	16	16				
Std dev									
Det. freq.									

**TETRA TECH R.P. Peins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKANES**

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKENES

VOLATILE AROMATIC HYDROCARBONS

FISH SUMMARIES	1,1-di-chloro-ethylene	1,2-trans-dichloro-ethylene	trans-1,3-di-chloro-propene	cis-1,3-di-chloro-propene	tetra-chloro-ethylene	tri-chloro-ethylene	vinyl chloride	benzene	ethyl-benzene	toluene
STATION										
BL-70										
Mean										
Std dev										
Det. freq.										
n=										
BL-71										
Mean										
Std dev										
Det. freq.										
n=										
BL-72										
Mean										
Std dev										
Det. freq.										
n=										
CI-70										
Mean	5	5	10	10	36	5	10	5	8	11
Std dev	0	0	0	0	34	0	0	0	4	1
Det. freq.	0	0	0	0	3	0	0	0	2	1
n=	4	4	4	4	4	4	4	4	4	4
CI-72										
Mean										
Std dev										
Det. freq.										
n=										
HY-70										
Mean										
Std dev										
Det. freq.										
n=										
HY-71										
Mean	5	5	10	10	107	5	10	5	21	12
Std dev	0	0	0	0	84	0	0	0	19	4
Det. freq.	0	0	0	0	3	0	0	0	3	1
n=	4	4	4	4	4	4	4	4	4	4
HY-72										
Mean	5	5	10	10	54	5	10	5	13	10
Std dev	0	0	0	0	34	0	0	0	8	0
Det. freq.	0	0	0	0	4	0	0	0	3	0
n=	4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKENES

VOLATILE AROMATIC HYDROCARBONS

FISH SUMMARIES	1,1-di- chloro- ethylene	1,2- trans- dichloro ethylene	trans- 1,3-di- chloro- propene	cis-1,3- di- chloro- propene	tetra- chloro- ethylene	tri- chloro- ethylene	vinyl chloride	benzene	ethyl- benzene	toluene
MD-70										
Mean										
Std dev										
Det. freq.										
n=										
MI-70										
Mean										
Std dev										
Det. freq.										
n=										
RS-70										
Mean										
Std dev										
Det. freq.										
n=										
RS-71										
Mean										
Std dev										
Det. freq.										
n=										
RS-72										
Mean										
Std dev										
Det. freq.										
n=										
SI-70										
Mean										
Std dev										
Det. freq.										
n=										
SP-70										
Mean										
Std dev										
Det. freq.										
n=										
CR-70										
Mean										
Std dev										
Det. freq.										
n=										
CR-71										
Mean										
Std dev										
Det. freq.										
n=										

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKENES

FISH SUMMARIES	1,1-di-chloro-ethylene	1,2-trans-dichloro-ethylene	trans-1,3-di-chloro-propene	cis-1,3-di-chloro-propene	tetra-chloro-ethylene	tri-chloro-ethylene	vinyl chloride	benzene	ethyl-benzene	toluene
STATION										
Mean										
Std dev										
Det. freq.										
CITY WW										
Mean	5	5	10	10	36	5	10	5	8	11
Std dev	0	0	0	0	34	0	0	0	4	1
Det. freq.	0	0	0	0	3	0	0	0	2	1
HYLEBOS WW	4	4	4	4	4	4	4	4	4	4
Mean	5	5	10	10	80	5	10	5	17	11
Std dev	0	0	0	0	66	0	0	0	14	2
Det. freq.	0	0	0	0	7	0	0	0	6	1
MIDDLE WW	8	8	8	8	8	8	8	8	8	8
Mean										
Std dev										
Det. freq.										
MILWAUKEE										
Mean										
Std dev										
Det. freq.										
RUSTON SHORES										
Mean										
Std dev										
Det. freq.										
SITCOH WW										
Mean										
Std dev										
Det. freq.										
ST. PAUL WW										
Mean	5	5	10	10	67	5	10	5	16	11
Std dev	0	0	0	0	109	0	0	0	22	2
Det. freq.	0	0	0	0	2	0	0	0	1	1
ALL WATERWAYS	4	4	4	4	4	4	4	4	4	4
Mean	5	5	10	10	66	5	10	5	15	11
Std dev	0	0	0	0	71	0	0	0	14	2
Det. freq.	0	0	0	0	12	0	0	0	9	3
ALL WATERWAYS	16	16	16	16	16	16	16	16	16	16

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight

VOLATILE HALOGENATED ALKENES

FISH SUMMARIES
STATION

BLAIR WW

Mean
Std dev
Det. freq.

CITY WW

Mean
Std dev
Det. freq.

HYLEBOS WW

Mean
Std dev
Det. freq.

MIDDLE WW

Mean
Std dev
Det. freq.

MILWAUKEE

Mean
Std dev
Det. freq.

RUSTON SHORES

Mean
Std dev
Det. freq.

SITCUM WW

Mean
Std dev
Det. freq.

ST. PAUL WW

Mean
Std dev
Det. freq.

ALL WATERWAYS

Mean
Std dev
Det. freq.

Mean
Std dev
Det. freq.

Mean
Std dev
Det. freq.

Mean
Std dev
Det. freq.

Mean
Std dev
Det. freq.

Mean
Std dev
Det. freq.

Mean
Std dev
Det. freq.

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
VOLATILE HALOGENATED ALKENES

VOLATILE AROMATIC HYDROCARBONS

FISH SUMMARIES	1,1-di- chloro- ethylene	1,2- trans- dichloro ethylene	trans- 1,3-di- chloro- propene	cis-1,3- di- chloro- propene	tetra- chloro- ethylene	tri- chloro- ethylene	vinyl chloride	benzene	ethyl- benzene	toluene
STATION										
REFERENCE AREA										
CARR INLET	5	5	10	10	7	5	10	5	5	11
Mean	0	0	0	0	4	0	0	0	0	1
Std dev	0	0	0	0	1	0	0	0	0	1
Det. freq.	4	4	4	4	4	4	4	4	4	4
n=										

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight							CHLORINATED AROMATIC HYDROCARBONS			CHLORINATED ALIPHATIC HYDROCARBONS		
FISH SUMMARIES	STATION	1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	hexa-chloro-butadiene	hexa-chloro-ethane					
BL-70	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
BL-71	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
BL-72	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
CI-70	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
CI-72	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
HY-70	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
HY-71	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
HY-72	Mean	20	10	10	20	20	20	40	40					
	Std dev	0	0	0	0	0	0	0	0					
	Det. freq.	0	0	0	0	0	0	0	0					
	n=	5	5	5	5	5	5	5	5					
HY-72	Mean	20	26	10	20	20	20	43	40					
	Std dev	0	26	0	0	0	0	16	0					
	Det. freq.	0	2	0	0	0	0	2	0					
	n=	5	5	5	5	5	5	5	5					

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight									
		CHLORINATED AROMATIC HYDROCARBONS									
FISH		1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	hexa-chloro-butadiene	hexa-chloro-ethane		
SUMMARIES											
STATION											
MD-70											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
MI-70											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
RS-70											
Mean	20	10	10	10	24	24	24	40	40		
Std dev	0	0	0	0	9	9	9	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
RS-71											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
RS-72											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
SI-70											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
SP-70											
Mean	20	10	10	10	20	66	20	40	40		
Std dev	0	0	0	0	0	103	0	0	0		
Det. freq.	0	0	0	0	0	1	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
CR-70											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		
CR-71											
Mean	20	10	10	10	20	20	20	40	40		
Std dev	0	0	0	0	0	0	0	0	0		
Det. freq.	0	0	0	0	0	0	0	0	0		
n=	5	5	5	5	5	5	5	5	5		

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peins 10/01/84		Values in ppb wet weight							
		CHLORINATED AROMATIC HYDROCARBONS							
FISH SUMMARIES		1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	hexa-chloro-butadiene	hexa-chloro-ethane
STATION									
BLAIR WW									
Mean	20	10	10	10	20	20	20	40	40
Std dev	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15
CITY WW									
Mean	20	10	10	10	20	94	20	40	40
Std dev	0	0	0	0	0	163	0	0	0
Det. freq.	0	0	0	0	0	3	0	0	0
n=	10	10	10	10	10	10	10	10	10
HYLEBOS WW									
Mean	20	15	10	10	20	20	20	41	40
Std dev	0	16	0	0	0	0	0	9	0
Det. freq.	0	2	0	0	0	0	0	2	0
n=	15	15	15	15	15	15	15	15	15
MIDDLE WW									
Mean	20	10	10	10	20	20	20	40	40
Std dev	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5
MILWAUKEE									
Mean	20	10	10	10	20	20	20	40	40
Std dev	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5
RUSTON SHORES									
Mean	20	10	10	10	21	21	21	40	40
Std dev	0	0	0	0	5	5	5	0	0
Det. freq.	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5
SITCUM WW									
Mean	20	10	10	10	20	66	20	40	40
Std dev	0	0	0	0	0	103	0	0	0
Det. freq.	0	0	0	0	0	1	0	0	0
n=	5	5	5	5	5	5	5	5	5
ST. PAUL WW									
Mean	20	10	10	10	20	20	20	40	40
Std dev	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5
ALL WATERWAYS									
Mean	20	11	10	10	20	33	20	40	40
Std dev	0	7	0	0	2	67	2	4	0
Det. freq.	0	2	0	0	0	4	0	2	0
n=	75	75	75	75	75	75	75	75	75

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Felna 10/01/84		Values in ppb wet weight							
		CHLORINATED AROMATIC HYDROCARBONS							
FISH		1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	hexa-chloro-buta-diene	hexa-chloro-ethane
SUMMARIES									
STATION									
REFERENCE AREA									
CARR INLET									
Mean		20	10	10	20	20	20	40	40
Std dev		0	0	0	0	0	0	0	0
Det. freq.		0	0	0	0	0	0	0	0
Σ		10	10	10	10	10	10	10	10

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH S.P. Feins 10/01/84		Values in ppb wet weight							
		CHLORINATED AROMATIC HYDROCARBONS							
CRAB SUMMARIES	STATION	1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	hexa-chloro-buta-diene	CHLORINATED ALIPHATIC HYDROCARBONS
BL-72	Mean	20	10	10	20	20	20	40	40
	Std dev	-	-	-	-	-	-	-	-
	Det. freq.	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1
CI-70	Mean	20	10	10	20	20	20	40	40
	Std dev	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0
		3	3	3	3	3	3	3	3
CI-72	Mean	20	10	10	20	20	20	40	40
	Std dev	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2
NY-71	Mean	20	10	10	20	20	20	40	40
	Std dev	-	-	-	-	-	-	-	-
	Det. freq.	0	0	0	0	0	0	0	0
		1	1	1	1	1	1	1	1
MD-70	Mean	20	10	10	20	20	20	40	40
	Std dev	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0
		2	2	2	2	2	2	2	2
MI-70	Mean	20	10	10	20	20	20	40	40
	Std dev	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0
		5	5	5	5	5	5	5	5
SI-70	Mean	20	10	10	20	20	20	40	40
	Std dev	0	0	0	0	0	0	0	0
	Det. freq.	0	0	0	0	0	0	0	0
		4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH S.P. Feins 10/01/84 Values in ppb wet weight
CHLORINATED AROMATIC HYDROCARBONS

CRAB SUMMARIES STATION	1,2,4- tri- chloro- benzene	hexa- chloro- benzene	2-chloro- naph- thalene	1,2-di- chloro- benzene	1,3-di- chloro- benzene	1,4-di- chloro- benzene	CHLORINATED ALIPHATIC HYDROCARBONS		
							hexa- chloro- diene	hexa- chloro- ethane	
SP-70	20	10	10	20	20	20	40	40	
Mean	-	-	-	-	-	-	-	-	
Std dev	0	0	0	0	0	0	0	0	
Det. freq.	1	1	1	1	1	1	1	1	
SP ⁸⁰									
CR-70	20	10	10	20	20	20	40	40	
Mean	0	0	0	0	0	0	0	0	
Std dev	0	0	0	0	0	0	0	0	
Det. freq.	3	3	3	3	3	3	3	3	
SP ⁸⁰									
CR-71	20	10	10	20	43	20	40	40	
Mean	0	0	0	0	45	0	0	0	
Std dev	0	0	0	0	0	0	0	0	
Det. freq.	4	4	4	4	4	4	4	4	
SP ⁸⁰									

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH		R.P. Feins	10/01/84		Values in ppb wet weight						
		CHLORINATED AROMATIC HYDROCARBONS									
		:									
CRAB		1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	hexa-chloro-butadiene	hexa-chloro-ethane		
STATION											
BLAIR WW		20	10	10	20	20	20	40	40		
Mean		-	-	-	-	-	-	-	-		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	1	1	1	1	1	1	1	1		
CITY WW		20	10	10	20	20	20	40	40		
Mean		0	0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	5	5	5	5	5	5	5	5		
HYLEBOS		20	10	10	20	20	20	40	40		
Mean		-	-	-	-	-	-	-	-		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	1	1	1	1	1	1	1	1		
MIDDLE WW		20	10	10	20	20	20	40	40		
Mean		0	0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	2	2	2	2	2	2	2	2		
MILWAUKEE WW		20	10	10	20	20	20	40	40		
Mean		0	0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	5	5	5	5	5	5	5	5		
SITCUM WW		20	10	10	20	20	20	40	40		
Mean		0	0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	4	4	4	4	4	4	4	4		
ST. PAUL WW		20	10	10	20	20	20	40	40		
Mean		-	-	-	-	-	-	-	-		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	1	1	1	1	1	1	1	1		
WATERWAYS		20	10	10	20	20	20	40	40		
Mean		0	0	0	0	0	0	0	0		
Std dev		0	0	0	0	0	0	0	0		
Det. freq.	n=	19	19	19	19	19	19	19	19		

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight						
		CHLORINATED AROMATIC HYDROCARBONS						
CRAB	1,2,4-tri-chloro-benzene	hexa-chloro-benzene	2-chloro-naph-thalene	1,2-di-chloro-benzene	1,3-di-chloro-benzene	1,4-di-chloro-benzene	CHLORINATED ALIPHATIC HYDROCARBONS	
SUMMARIES							hexa-chloro-buta-diene	hexa-chloro-ethane
STATION								
REFERENCE AREA								
CARR INLET								
Mean	20	10	10	20	33	20	40	40
Std dev	0	0	0	0	34	0	0	0
Det. freq.	0	0	0	0	0	0	0	0
n=	7	7	7	7	7	7	7	7

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH	R.P.Feins 10/01/84	Values in ppb wet weight			
FISH SUMMARIES		TOTAL TRI-CHLOR. BUTADIENES	TOTAL TETRA-CHLOR. BUTADIENES	TOTAL PENTA-CHLOR. BUTADIENES	
STATION					
BL-70		26	26	26	
Mean		2	2	2	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
BL-71		19	19	19	
Mean		5	5	5	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
BL-72		23	23	23	
Mean		3	3	3	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
CI-70		22	22	22	
Mean		3	3	3	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
CI-72		19	19	19	
Mean		4	4	4	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
HY-70		20	20	20	
Mean		0	0	0	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
HY-71		20	20	20	
Mean		0	0	0	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
HY-72		21	21	21	
Mean		2	2	2	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH	R.P.Feins 10/01/84	Values in ppb wet weight			
FISH SUMMARIES		TOTAL TRI- CHLOR. BUTADIENES	TOTAL TETRA- CHLOR. BUTADIENES	TOTAL PENTA- CHLOR. BUTADIENES	
STATION					
MD-70		20	20	20	
Mean					
Std dev		0	0	0	
Det. freq.		0	0	0	
n=		5	5	5	
MI-70		20	20	20	
Mean					
Std dev		0	0	0	
Det. freq.		0	0	0	
n=		5	5	5	
RS-70		42	42	42	
Mean					
Std dev		12	12	12	
Det. freq.		0	0	0	
n=		5	5	5	
RS-71		32	32	32	
Mean					
Std dev		13	13	13	
Det. freq.		0	0	0	
n=		5	5	5	
RS-72		41	41	41	
Mean					
Std dev		10	10	10	
Det. freq.		0	0	0	
n=		5	5	5	
SI-70		29	29	29	
Mean					
Std dev		12	12	12	
Det. freq.		0	0	0	
n=		5	5	5	
SP-70		25	25	25	
Mean					
Std dev		9	9	9	
Det. freq.		0	0	0	
n=		5	5	5	
CR-70		19	19	19	
Mean					
Std dev		2	2	2	
Det. freq.		0	0	0	
n=		5	5	5	
CR-71		20	20	20	
Mean					
Std dev		0	0	0	
Det. freq.		0	0	0	
n=		5	5	5	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH	R.P.Felms 10/01/84	Values in ppb wet weight		
FISH SUMMARIES	TOTAL TRI-CHLOR. BUTADIENES	TOTAL TETRA-CHLOR. BUTADIENES	TOTAL PENTA-CHLOR. BUTADIENES	
STATION				
BLAIR WW	23	23	23	
Mean	5	5	5	
Std dev	0	0	0	
Det. freq.	15	15	15	
n=				
CITY WW	21	21	21	
Mean	4	4	4	
Std dev	0	0	0	
Det. freq.	10	10	10	
n=				
HYLEBOS WW	20	20	20	
Mean	1	1	1	
Std dev	0	0	0	
Det. freq.	15	15	15	
n=				
MIDDLE WW	20	20	20	
Mean	0	0	0	
Std dev	0	0	0	
Det. freq.	5	5	5	
n=				
MILWAUKEE	20	20	20	
Mean	0	0	0	
Std dev	0	0	0	
Det. freq.	5	5	5	
n=				
RUSTON SHORES	38	38	38	
Mean	12	12	12	
Std dev	0	0	0	
Det. freq.	15	15	15	
n=				
SITCUM WW	29	29	29	
Mean	12	12	12	
Std dev	0	0	0	
Det. freq.	5	5	5	
n=				
ST. PAUL WW	25	25	25	
Mean	9	9	9	
Std dev	0	0	0	
Det. freq.	5	5	5	
n=				
ALL WATERWAYS	25	25	25	
Mean	10	10	10	
Std dev	0	0	0	
Det. freq.	75	75	75	
n=				

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P.Felms 10/01/84 Values in ppb wet weight

FISH SUNNARIES	TOTAL TRI- CHLOR.	TOTAL TETRA- CHLOR.	TOTAL PENTA- CHLOR.
STATION	BUTADIENES	BUTADIENES	BUTADIENES

REFERENCE AREA

CARR INLET	20	20	20
Mean	2	2	2
Std dev	0	0	0
Det. freq.	10	10	10

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH	R.P.Felms 10/01/84	Values in ppb wet weight			
CRAB SUMMARIES		TOTAL TRI-CHLOR. BUTADIENES	TOTAL TETRA-CHLOR. BUTADIENES	TOTAL PENTA-CHLOR. BUTADIENES	
STATION					
BL-72		25	25	25	
Mean		-	-	-	
Std dev		0	0	0	
Det. freq.	n=	1	1	1	
CI-70		28	28	28	
Mean		19	19	19	
Std dev		0	0	0	
Det. freq.	n=	3	3	3	
CI-72		18	18	18	
Mean		4	4	4	
Std dev		0	0	0	
Det. freq.	n=	2	2	2	
HY-71		20	20	20	
Mean		-	-	-	
Std dev		0	0	0	
Det. freq.	n=	1	1	1	
MD-70		20	20	20	
Mean		0	0	0	
Std dev		0	0	0	
Det. freq.	n=	2	2	2	
HI-70		36	36	36	
Mean		36	36	36	
Std dev		0	0	0	
Det. freq.	n=	5	5	5	
SI-70		24	24	24	
Mean		3	3	3	
Std dev		0	0	0	
Det. freq.	n=	4	4	4	

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peins 10/01/84 Values in ppb wet weight

CRAB SUMMARIES	TOTAL TRI- CHLOR. BUTADIENES	TOTAL TETRA- CHLOR. BUTADIENES	TOTAL PENTA- CHLOR. BUTADIENES
STATION	SP-70	CR-70	CR-71
Mean	20	20	19
Std dev	-	-	3
Det. freq.	0	0	0
n=	1	1	4
Mean	20	20	19
Std dev	0	0	3
Det. freq.	0	0	0
n=	3	3	4
Mean	19	19	19
Std dev	3	3	3
Det. freq.	0	0	0
n=	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH N.P. Feine 10/01/84 Values in ppb wet weight

CRAB SUMMARIES	TOTAL TRI- CHLOR. BUTADIENES	TOTAL TETRA- CHLOR. BUTADIENES	TOTAL PENTA- CHLOR. BUTADIENES
STATION			
BLAIR WW	25	25	25
Mean	-	-	-
Std dev	0	0	0
Det. freq.	1	1	1
n			
CITY WW	24	24	24
Mean	15	15	15
Std dev	0	0	0
Det. freq.	5	5	5
n			
HYLEBOS	20	20	20
Mean	-	-	-
Std dev	0	0	0
Det. freq.	1	1	1
n			
MIDDLE WW	20	20	20
Mean	0	0	0
Std dev	0	0	0
Det. freq.	2	2	2
n			
MILWAUKEE WW	36	36	36
Mean	36	36	36
Std dev	0	0	0
Det. freq.	5	5	5
n			
SITCOH WW	24	24	24
Mean	3	3	3
Std dev	0	0	0
Det. freq.	4	4	4
n			
ST. PAUL WW	20	20	20
Mean	-	-	-
Std dev	0	0	0
Det. freq.	1	1	1
n			
WATERWAYS	26	26	26
Mean	19	19	19
Std dev	0	0	0
Det. freq.	19	19	19
n			

TETRA TECH	R.P. Peine 10/01/84	Values in ppb wet weight
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

CARB SUMMARIES	TOTAL TRI- CHLOR. BUTADIENES	TOTAL TETRA- CHLOR. BUTADIENES	TOTAL PENTA- CHLOR. BUTADIENES
STATION			
REFERENCE AREA			
CARR INLET	19	19	19
Mean			
Std dev	2	2	2
Det. freq.	0	0	0
	7	7	7

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

FISH SUMMARIES STATION	acenaph- thene	naphthe- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
BL-70	10	30	10	10	10	10
Mean	0	45	0	0	0	0
Std dev	0	1	0	0	0	0
Det. freq.	5	5	5	5	5	5
BL-71	10	27	10	10	10	10
Mean	0	38	0	0	0	0
Std dev	0	1	0	0	0	0
Det. freq.	5	5	5	5	5	5
BL-72	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
CI-70	10	64	10	10	10	10
Mean	0	83	0	0	0	0
Std dev	0	4	0	0	0	0
Det. freq.	5	5	5	5	5	5
CI-72	10	381	10	10	10	10
Mean	0	794	0	0	0	0
Std dev	0	2	0	0	0	0
Det. freq.	5	5	5	5	5	5
HY-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
HY-71	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
HY-72	10	88	10	10	10	10
Mean	0	65	0	0	0	0
Std dev	0	4	0	0	0	0
Det. freq.	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight

LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

FISH SUMMARIES STATION	acenaph- thene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
MD-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
MI-70	10	1322	10	10	10	10
Mean	0	855	0	0	0	0
Std dev	0	4	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
BS-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
BS-71	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
BS-72	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
SI-70	10	18	10	10	10	10
Mean	0	17	0	0	0	0
Std dev	0	1	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
SP-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
CR-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
CR-71	10	98	10	10	10	10
Mean	0	136	0	0	0	0
Std dev	0	2	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

FISH SUMMARIES STATION	acenaph- thene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
BLAIR WW	10	22	10	10	10	10
Mean	0	33	0	0	0	0
Std dev	0	2	0	0	0	0
Det. freq.	15	15	15	15	15	15
n=						
CITY WW	10	222	10	10	10	10
Mean	0	558	0	0	0	0
Std dev	0	6	0	0	0	0
Det. freq.	10	10	10	10	10	10
n=						
HYLEBOS WW	10	36	10	10	10	10
Mean	0	51	0	0	0	0
Std dev	0	4	0	0	0	0
Det. freq.	15	15	15	15	15	15
n=						
MIDDLE WW	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
MILWAUKEE	10	1322	10	10	10	10
Mean	0	855	0	0	0	0
Std dev	0	4	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
BUSTON SHORES	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	15	15	15	15	15	15
n=						
SITCUM WW	10	10	10	10	10	10
Mean	0	17	0	0	0	0
Std dev	0	1	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
ST. PAUL WW	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
ALL WATERWAYS	10	134	10	10	10	10
Mean	0	430	0	0	0	0
Std dev	0	17	0	0	0	0
Det. freq.	75	75	75	75	75	75
n=						

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight :

LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

FISH STATION	acena- phene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
CARR INLET						
Mean	10	54	10	10	10	10
Std dev	0	102	0	0	0	0
Det. freq.	0	2	0	0	0	0
χ^2	10	10	10	10	10	10

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Fains 10/01/84 Values in ppb wet weight
LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

CRAB SUMMARIES STATION	acenaph- thene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
BL-72	10	10	10	10	10	10
Mean	-	-	-	-	-	-
Std dev	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1
CI-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3
CI-72	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2
HY-71	10	10	10	10	10	10
Mean	-	-	-	-	-	-
Std dev	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1
HD-70	10	10	10	10	10	20
Mean	0	0	0	0	0	13
Std dev	0	0	0	0	0	1
Det. freq.	2	2	2	2	2	2
MI-70	10	248	10	10	10	10
Mean	0	332	0	0	0	0
Std dev	0	1	0	0	0	0
Det. freq.	5	5	5	5	5	5
SI-70	10	20	10	10	10	10
Mean	0	7	0	0	0	0
Std dev	0	3	0	0	0	0
Det. freq.	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight

LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

CRAB SUMMARIES STATION	acenaph- thene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
SP-70	10	10	10	10	10	10
Mean	-	-	-	-	-	-
Std dev	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1
CR-70	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3
CR-71	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	4	4'	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight

LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

CRAB SUMMARIES STATION	acenaph- thene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
BLAIR WW	10	10	10	10	10	10
Mean	-	-	-	-	-	-
Std dev	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1
n=						
CITY WW	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
HYLEBOS	10	10	10	10	10	10
Mean	-	-	-	-	-	-
Std dev	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1
n=						
MIDDLE WW	10	10	10	10	10	20
Mean	0	0	0	0	0	13
Std dev	0	0	0	0	0	1
Det. freq.	2	2	2	2	2	2
n=						
MILWAUKEE WW	10	248	10	10	10	10
Mean	0	532	0	0	0	0
Std dev	0	1	0	0	0	0
Det. freq.	5	5	5	5	5	5
n=						
SITCUM WW	10	20	10	10	10	10
Mean	0	7	0	0	0	0
Std dev	0	3	0	0	0	0
Det. freq.	4	4	4	4	4	4
n=						
ST. PAUL WW	10	10	10	10	10	10
Mean	-	-	-	-	-	-
Std dev	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1
n=						
WATERWAYS	10	75	10	10	10	11
Mean	0	273	0	0	0	4
Std dev	0	4	0	0	0	1
Det. freq.	19	19	19	19	19	19
n=						

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight

LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

CRAB SUMMARIES STATION	acenaph- thene	naphtha- lene	acenaph- thylene	anthra- cene	fluorene	phenan- threne
REFERENCE AREA						
CARR INLET	10	10	10	10	10	10
Mean	0	0	0	0	0	0
Std dev	0	0	0	0	0	0
Det. freq.	7	7	7	7	7	7

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

FISH SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
BL-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
n=							
BL-71	100						
Mean	0						
Std dev	0						
Det. freq.	5						
n=							
BL-72	100						
Mean	0						
Std dev	0						
Det. freq.	5						
n=							
CI-70	100	100	5	50	50	100	29
Mean	0	0	0	0	0	0	27
Std dev	0	0	0	0	0	0	2
Det. freq.	5	4	4	4	4	4	4
n=							
CI-72	100						
Mean	0						
Std dev	0						
Det. freq.	5						
n=							
HY-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
n=							
HY-71	100	100	5	50	50	100	91
Mean	0	0	0	0	0	0	68
Std dev	0	0	0	0	0	0	3
Det. freq.	5	4	4	4	4	4	4
n=							
HY-72	100	100	5	50	50	100	51
Mean	0	0	0	0	0	0	39
Std dev	0	0	0	0	0	0	3
Det. freq.	5	4	4	4	4	4	4
n=							

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

FISH SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
HD-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
MI-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
RS-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
RS-71	100						
Mean	0						
Std dev	0						
Det. freq.	5						
RS-72	100						
Mean	0						
Std dev	0						
Det. freq.	5						
SI-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
SP-70	100	100	6	50	50	100	49
Mean	0	0	1	0	0	0	88
Std dev	0	0	0	0	0	0	1
Det. freq.	5	4	4	4	4	4	4
CR-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
CR-71	100	100	5	50	50	100	5
Mean	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0
Det. freq.	5	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Felms 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

FISH SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
BLAIR WW	100						
Mean	0						
Std dev	0						
Det. freq.	0						
n=	15						
CITY WW	100	100	5	50	50	100	29
Mean	0	0	0	0	0	0	27
Std dev	0	0	0	0	0	0	2
Det. freq.	10	4	4	4	4	4	4
n=							
HYLEBOS WW	100	100	5	50	50	100	71
Mean	0	0	0	0	0	0	55
Std dev	0	0	0	0	0	0	6
Det. freq.	15	8	8	8	8	8	8
n=							
MIDDLE WW	100						
Mean	0						
Std dev	0						
Det. freq.	0						
n=	5						
MILWAUKEE	100						
Mean	0						
Std dev	0						
Det. freq.	0						
n=	5						
BUSTON SHORES	100						
Mean	0						
Std dev	0						
Det. freq.	0						
n=	15						
SITCUM WW	100						
Mean	0						
Std dev	0						
Det. freq.	0						
n=	5						
ST. PAUL WW	100	100	6	50	50	100	49
Mean	0	0	1	0	0	0	88
Std dev	0	0	0	0	0	0	1
Det. freq.	5	4	4	4	4	4	4
n=							
ALL WATERWAYS	100	100	5	50	50	100	55
Mean	0	0	1	0	0	0	59
Std dev	0	0	0	0	0	0	9
Det. freq.	75	16	16	16	16	16	16
n=							

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feina 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

FISH SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
STATION							
REFERENCE AREA							
CARR INLET	100	100	5	50	50	100	5
Mean	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0
n=	10	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Felms 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAE SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
STATION							
BL-72	100						
Mean	-						
Std dev	0						
Det. freq.	1						
n=							
CI-70	100						
Mean	0						
Std dev	0						
Det. freq.	3						
n=							
CI-72	100						
Mean	0						
Std dev	0						
Det. freq.	2						
n=							
HY-71	100						
Mean	-						
Std dev	0						
Det. freq.	1						
n=							
MD-70	100						
Mean	0						
Std dev	0						
Det. freq.	2						
n=							
HI-70	100						
Mean	0						
Std dev	0						
Det. freq.	5						
n=							
SI-70	100						
Mean	0						
Std dev	0						
Det. freq.	4						
n=							

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAB SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
STATION							
SP-70							
Mean	100						
Std dev	-						
Det. freq.	0						
n=	1						
CR-70							
Mean	100						
Std dev	0						
Det. freq.	0						
n=	3						
CR-71							
Mean	100						
Std dev	0						
Det. freq.	0						
n=	4						

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.F. Feins 10/01/84 Values in ppb wet weight
HAZARDOUS SUBSTANCES

CRAB SUMMARIES	4- nitro- aniline	acetone	2- butanone	carbon di- sulfide	2- hexanone	vinyl acetate	total xylenes
STATION							
BLAIR WW	100						
Mean							
Std dev	-						
Det. freq.	0						
n=	1						
CITY WW	100						
Mean							
Std dev	0						
Det. freq.	0						
n=	5						
HYLEBOS	100						
Mean							
Std dev	-						
Det. freq.	0						
n=	1						
MIDDLE WW	100						
Mean							
Std dev	0						
Det. freq.	0						
n=	2						
MILWAUKEE WW	100						
Mean							
Std dev	0						
Det. freq.	0						
n=	5						
SITCUM WW	100						
Mean							
Std dev	0						
Det. freq.	0						
n=	4						
ST. PAUL WW	100						
Mean							
Std dev	-						
Det. freq.	0						
n=	1						
WATERWAYS	100						
Mean							
Std dev	0						
Det. freq.	0						
n=	19						

TETRA TECH	S.P. Feins	10/01/84	Values in ppb wet weight
HAZARDOUS SUBSTANCES			

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TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

FISH
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfan	b-endo- sulfan	endo- sulfan sulfate	endrin	endrin aldehyde
BL-70	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
BL-71	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
BL-72	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
CI-70	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
CI-72	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-70	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-71	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											
HY-72	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peine 10/01/84 Values in ppb wet weight
PESTICIDES

FISH
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfen	b-endo- sulfen	endo- sulfate	endrin	endo- aldehyde
MD-70											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
MI-70											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RS-70											
Mean	100	100	100	100	100	100	100	100	100	100	100
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RS-71											
Mean	80	80	80	80	80	80	80	80	80	80	80
Std dev	27	27	27	27	27	27	27	27	27	27	27
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RS-72											
Mean	100	100	100	100	100	100	100	100	100	100	100
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
SI-70											
Mean	95	95	95	95	95	95	95	95	95	95	95
Std dev	11	11	11	11	11	11	11	11	11	11	11
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
SP-70											
Mean	70	70	70	70	70	70	70	70	70	70	70
Std dev	21	21	21	21	21	21	21	21	21	21	21
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
CR-70											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
CR-71											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peins 10/01/84 Values in ppb wet weight
PESTICIDES

FISH
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfan	b-endo- sulfan	endo- sulfan sulfate	endrin	endrin aldehyde
BLAIR WW											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15	15
CITY WW											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	10	10	10	10	10	10	10	10	10	10	10
HYLEROS WW											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15	15
MIDDLE WW											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
MILWAUKEE											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
RUSTON SHORES											
Mean	93	93	93	93	93	93	93	93	93	93	93
Std dev	18	18	18	18	18	18	18	18	18	18	18
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	15	15	15	15	15	15	15	15	15	15	15
SITCUM WW											
Mean	95	95	95	95	95	95	95	95	95	95	95
Std dev	11	11	11	11	11	11	11	11	11	11	11
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
ST. PAUL WW											
Mean	70	70	70	70	70	70	70	70	70	70	70
Std dev	21	21	21	21	21	21	21	21	21	21	21
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
ALL WATERWAYS											
Mean	63	63	63	63	63	63	63	63	63	63	63
Std dev	21	21	21	21	21	21	21	21	21	21	21
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	75	75	75	75	75	75	75	75	75	75	75

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

FISH SUMMARIES	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfan	b-endo- sulfan	endo- sulfan sulfate	endrin	endrin aldehyde
CARR INLET	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	10	10	10	10	10	10	10	10	10	10	10
n=											
REFERENCE AREA											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84		Values in ppb wet weight					PCB'S	
FISH SUMMARIES		PESTICIDES						
STATION		hepta-chlor	hepta-chlor epoxide	a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
BL-70		50	50	50	50	50	50	276
Mean		0	0	0	0	0	0	212
Std dev		0	0	0	0	0	0	4
Det. freq.	n=	5	5	5	5	5	5	5
BL-71		50	50	50	50	50	50	236
Mean		0	0	0	0	0	0	146
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5
BL-72		50	50	50	50	50	50	248
Mean		0	0	0	0	0	0	100
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5
CI-70		50	50	50	50	50	50	470
Mean		0	0	0	0	0	0	215
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5
CI-72		50	50	50	50	50	50	238
Mean		0	0	0	0	0	0	176
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5
HY-70		50	50	50	50	50	50	536
Mean		0	0	0	0	0	0	517
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5
HY-71		50	50	50	50	50	50	300
Mean		0	0	0	0	0	0	185
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5
HY-72		50	50	50	50	50	50	159
Mean		0	0	0	0	0	0	99
Std dev		0	0	0	0	0	0	5
Det. freq.	n=	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

PCB'S

FISH SUMMARIES	hepta- chlor	hepta- chlor epoxide	a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
STATION							
MD-70							
Mean	50	50	50	50	50	50	170
Std dev	0	0	0	0	0	0	116
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
MI-70							
Mean	50	50	50	50	50	50	100
Std dev	0	0	0	0	0	0	62
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
RS-70							
Mean	100	100	100	100	100	100	107
Std dev	0	0	0	0	0	0	94
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
RS-71							
Mean	80	80	80	80	80	80	58
Std dev	27	27	27	27	27	27	30
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
RS-72							
Mean	100	100	100	100	100	100	40
Std dev	0	0	0	0	0	0	23
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
SI-70							
Mean	95	81	95	95	95	95	172
Std dev	11	42	11	11	11	11	207
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
SP-70							
Mean	70	70	70	70	70	70	40
Std dev	21	21	21	21	21	21	19
Det. freq.	0	0	0	0	0	0	5
n=	5	5	5	5	5	5	5
CR-70							
Mean	50	50	50	50	50	50	40
Std dev	0	0	0	0	0	0	19
Det. freq.	0	0	0	0	0	0	3
n=	5	5	5	5	5	5	5
CR-71							
Mean	50	50	50	50	50	50	32
Std dev	0	0	0	0	0	0	8
Det. freq.	0	0	0	0	0	0	4
n=	5	5	5	5	5	5	5

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peins 10/01/84 Values in ppb wet weight
PESTICIDES

FISH SUMMARIES	hepta- chlor	hepta- chlor epoxide	a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's ^a
BLAIR WW	50	50	50	50	50	50	253
Mean	0	0	0	0	0	0	149
Std dev	0	0	0	0	0	0	14
Det. freq.	15	15	15	15	15	15	15
n=							
CITY WW	50	50	50	50	50	50	354
Mean	0	0	0	0	0	0	222
Std dev	0	0	0	0	0	0	10
Det. freq.	10	10	10	10	10	10	10
n=							
HYLBOS WW	50	50	50	50	50	50	332
Mean	0	0	0	0	0	0	339
Std dev	0	0	0	0	0	0	15
Det. freq.	15	15	15	15	15	15	15
n=							
MIDDLE WW	50	50	50	50	50	50	170
Mean	0	0	0	0	0	0	116
Std dev	0	0	0	0	0	0	5
Det. freq.	5	5	5	5	5	5	5
n=							
MILWAUKEE	50	50	50	50	50	50	100
Mean	0	0	0	0	0	0	62
Std dev	0	0	0	0	0	0	5
Det. freq.	5	5	5	5	5	5	5
n=							
RUSTON SHORES	93	93	93	93	93	93	68
Mean	18	18	18	18	18	18	62
Std dev	0	0	0	0	0	0	15
Det. freq.	15	15	15	15	15	15	15
n=							
SITCUH WW	95	81	95	95	95	95	172
Mean	11	42	11	11	11	11	207
Std dev	0	0	0	0	0	0	5
Det. freq.	5	5	5	5	5	5	5
n=							
ST. PAUL WW	70	70	70	70	70	70	40
Mean	21	21	21	21	21	21	19
Std dev	0	0	0	0	0	0	5
Det. freq.	5	5	5	5	5	5	5
n=							
ALL WATERWAYS	63	62	63	63	63	63	210
Mean	21	22	21	21	21	21	222
Std dev	0	0	0	0	0	0	74
Det. freq.	75	75	75	75	75	75	75
n=							

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

FISH SUNHARIES	hepta- chlor	hepta- chlor epoxide	s-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
STATION							
REFERENCE AREA							
CARR INLET	50	50	50	50	50	50	36
Mean	0	0	0	0	0	0	14
Std dev	0	0	0	0	0	0	7
Det. freq.	10	10	10	10	10	10	10
n=							

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.F. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

CRAW
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfen	b-endo- sulfen	endo- sulfen sulfate	endrin	endrin aldehyde
BL-72											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	-	-	-	-	-	-	-	-	-	-	-
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	1	1	1	1	1	1	1	1	1	1	1
CI-70											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	3	3	3	3	3	3	3	3	3	3	3
CI-72											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	2	2	2	2	2	2	2	2	2	2	2
NY-71											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	-	-	-	-	-	-	-	-	-	-	-
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	1	1	1	1	1	1	1	1	1	1	1
MD-70											
Mean	75	75	75	75	75	75	75	75	75	75	75
Std dev	35	35	35	35	35	35	35	35	35	35	35
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	2	2	2	2	2	2	2	2	2	2	2
MI-70											
Mean	80	80	80	80	80	80	80	80	80	80	80
Std dev	27	27	27	27	27	27	27	27	27	27	27
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	5	5	5	5	5	5	5	5	5	5	5
SI-70											
Mean	75	75	75	75	75	75	75	75	75	75	75
Std dev	20	20	20	20	20	20	20	20	20	20	20
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
n=	4	4	4	4	4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

CRAB
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfox	b-endo- sulfox	endo- sulfox sulfate	endrin	endrin aldehyde
SP-70	50	50	50	50	50	50	50	50	50	50	50
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n=											
CR-70	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3	3	3	3	3
n=											
CR-71	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4	4
n=											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

CRAB
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	a-endo- sulfan	b-endo- sulfan	endo- sulfan sulfate	endrin	endrin aldehyde
BLAIR WW	50	50	50	50	50	50	50	50	50	50	50
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n											
CITY WW	50	50	50	50	50	50	50	50	50	50	50
Mean	0	0	0	0	0	0	0	0	0	0	0
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n											
HYLEBOS	50	50	50	50	50	50	50	50	50	50	50
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n											
MIDDLE WW	75	75	75	75	75	75	75	75	75	75	75
Mean	35	35	35	35	35	35	35	35	35	35	35
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	2	2	2	2	2	2	2	2	2	2	2
n											
MILWAUKEE WW	80	80	80	80	80	80	80	80	80	80	80
Mean	27	27	27	27	27	27	27	27	27	27	27
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	5	5	5	5	5	5	5	5	5	5	5
n											
SITCUM WW	75	75	75	75	75	75	75	75	75	75	75
Mean	20	20	20	20	20	20	20	20	20	20	20
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4	4	4	4	4
n											
ST. PAUL WW	50	50	50	50	50	50	50	50	50	50	50
Mean	-	-	-	-	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1	1	1	1	1
n											
WATERWAYS	66	66	66	66	66	66	66	66	66	66	66
Mean	22	22	22	22	22	22	22	22	22	22	22
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	19	19	19	19	19	19	19	19	19	19	19
n											

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feina 10/01/84 Values in ppb wet weight
PESTICIDES

CRAB
SUMMARIES

STATION	aldrin	dieldrin	chlor- dane	4,4'-DDT	4,4'-DDE	4,4'-DDD	s-endo- sulfan	b-endo- sulfan	endo- sulfan sulfate	endrin	endrin aldehyde
REFERENCE AREA											
CARR INLET											
Mean	50	50	50	50	50	50	50	50	50	50	50
Std dev	0	0	0	0	0	0	0	0	0	0	0
Det. freq.	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Peine 10/01/84 Values in ppb wet weight
PESTICIDES

CRAB SUMMARIES	STATION	n	hepta- chlor	hepta- chlor epoxide	PCB's				
					a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
BL-72			50	50	50	50	50	50	130
Mean			-	-	-	-	-	-	-
Std dev			0	0	0	0	0	0	0
Det. freq.			1	1	1	1	1	1	1
CI-70			50	50	50	50	50	50	83
Mean			0	0	0	0	0	0	25
Std dev			0	0	0	0	0	0	3
Det. freq.			3	3	3	3	3	3	3
CI-72			50	50	50	50	50	50	40
Mean			0	0	0	0	0	0	14
Std dev			0	0	0	0	0	0	2
Det. freq.			2	2	2	2	2	2	2
HY-71			50	50	50	50	50	50	120
Mean			-	-	-	-	-	-	-
Std dev			0	0	0	0	0	0	0
Det. freq.			1	1	1	1	1	1	1
MD-70			75	75	75	75	75	75	40
Mean			35	35	35	35	35	35	14
Std dev			0	0	0	0	0	0	2
Det. freq.			2	2	2	2	2	2	2
HL-70			80	80	80	80	80	80	74
Mean			27	27	27	27	27	27	38
Std dev			0	0	0	0	0	0	5
Det. freq.			5	5	5	5	5	5	5
SI-70			75	75	75	75	75	75	233
Mean			20	20	20	20	20	20	200
Std dev			0	0	0	0	0	0	4
Det. freq.			4	4	4	4	4	4	4

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

CHAS SUMMARIES	hepta- chlor	hepta- chlor epoxide	a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
STATION							
SP-70	50	50	50	50	50	50	20
Mean	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1
n							
CB-70	50	50	50	50	50	50	22
Mean	0	0	0	0	0	0	3
Std dev	0	0	0	0	0	0	0
Det. freq.	3	3	3	3	3	3	3
n							
CB-71	50	50	50	50	50	50	23
Mean	0	0	0	0	0	0	5
Std dev	0	0	0	0	0	0	0
Det. freq.	4	4	4	4	4	4	4
n							

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight
PESTICIDES

CRAB SUMMARIES	hepta- chlor	hepta- chlor epoxide	a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
STATION							
BLAIR WW	50	50	50	50	50	50	130
Mean	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1
n=							
CITY WW	50	50	50	50	50	50	66
Mean	0	0	0	0	0	0	30
Std dev	0	0	0	0	0	0	5
Det. freq.	5	5	5	5	5	5	5
n=							
HYLEBOS	50	50	50	50	50	50	120
Mean	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1
n=							
MIDDLE WW	75	75	75	75	75	75	40
Mean	35	35	35	35	35	35	14
Std dev	0	0	0	0	0	0	2
Det. freq.	2	2	2	2	2	2	2
n=							
MILWAUKEE WW	80	80	80	80	80	80	74
Mean	27	27	27	27	27	27	38
Std dev	0	0	0	0	0	0	5
Det. freq.	5	5	5	5	5	5	5
n=							
SITCUM WW	75	75	75	75	75	75	233
Mean	20	20	20	20	20	20	200
Std dev	0	0	0	0	0	0	4
Det. freq.	4	4	4	4	4	4	4
n=							
ST. PAUL WW	50	50	50	50	50	50	20
Mean	-	-	-	-	-	-	-
Std dev	0	0	0	0	0	0	0
Det. freq.	1	1	1	1	1	1	1
n=							
WATERWAYS	66	66	66	66	66	66	104
Mean	22	22	22	22	22	22	112
Std dev	0	0	0	0	0	0	18
Det. freq.	19	19	19	19	19	19	19
n=							

TISSUE DATA FROM COMMENCEMENT BAY BIOACCUMULATION SURVEY

TETRA TECH R.P. Feins 10/01/84 Values in ppb wet weight PCB'S

CRAB SUMMARIES	hepta- chlor	hepta- chlor epoxide	a-HCH	b-HCH	d-HCH	g-HCH	Total PCB's
STATION							
REFERENCE AREA							
CARR INLET	50	50	50	50	50	50	22
Mean	0	0	0	0	0	0	4
Std dev	0	0	0	0	0	0	0
Det. freq.	7	7	7	7	7	7	7

APPENDIX E

METALS DATA FROM
COMMENCEMENT BAY BIOACCUMULATION SURVEY

Data summaries provided by Tetra Tech, Inc.
Bellevue, Washington

11/29/84

 COMMENCEMENT BAY TISSUE INORGANICS DATA
 ALL VALUES IN PART PER MILLION

R. Feins

STATISTICS FOR FISH BY STATION

 Summaries of
 By levels of ANTIMONY
 STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	1.0000	0.0	5	0
BL-71	1.0000	0.0	5	0
BL-72	1.0400	.0894	5	1
CI-70	1.0000	0.0	5	0
CI-72	1.0000	0.0	5	0
CR-70	1.0000	0.0	5	0
CR-71	1.0000	0.0	5	0
HY-70	1.1400	.3130	5	1
HY-71	1.0000	0.0	5	0
HY-72	1.0000	0.0	5	1
MD-70	1.0000	0.0	5	0
ML-70	1.0000	0.0	5	0
RS-70	1.0000	0.0	5	0
RS-71	1.0400	.0894	5	1
RS-72	1.0000	0.0	5	0
SI-70	1.0200	-.0447	5	1
SP-70	1.0400	.0894	5	1
	1.0000	0.0	5	0

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of ARSENIC
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	6.8400	6.3105	5	5
BL-71	10.0800	5.7282	5	5
BL-72	3.0800	1.4025	5	5
CI-70	2.4800	.4604	5	5
CI-72	3.4600	1.6727	5	5
CR-70	6.4000	5.4631	5	5
CR-71	9.4800	12.5908	5	5
HY-70	3.6200	2.4601	5	5
HY-71	2.9400	1.1127	5	5
HY-72	2.4000	1.3398	5	4
MD-70	2.2800	1.3700	5	5
MI-70	2.0500	1.0689	5	5
RS-70	3.1000	2.3022	5	4
RS-71	10.0700	10.9372	5	5
RS-72	5.6000	2.2102	5	5
SI-70	1.5800	1.1367	5	5
SP-70	1.4700	.7791	5	4

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.01420	.00179	5	3
BL-71	.01380	.00179	5	2
BL-72	.03440	.04785	5	1
CI-70	.04380	.05953	5	3
CI-72	.02220	.01693	5	2
CR-70	.01900	.01342	5	2
CR-71	.02160	.01868	5	2
HY-70	.03400	.02251	5	4
HY-71	.05340	.03242	5	3
HY-72	.01360	.00134	5	1
MO-70	.05440	.09257	5	1
MI-70	.01300	0.0	5	0
RS-70	.01300	0.0	5	0
RS-71	.01300	0.0	5	0
RS-72	.01340	.00089	5	1
SI-70	.03420	.03363	5	2
SP-70	.03300	.03349	5	3

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of CHROMIUM
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.2300	.0768	5	4
BL-71	.1920	.0581	5	3
BL-72	.1520	.0084	5	3
CI-70	.2500	.1329	5	4
CI-72	.1560	.0321	5	5
CR-70	.1860	.0862	5	2
CR-71	.1940	.0699	5	3
HY-70	.2820	.1970	5	2
HY-71	.2400	.1377	5	3
HY-72	.2040	.1322	5	3
MD-70	.1400	0.0	5	0
MI-70	.1680	.0311	5	3
RS-70	.1960	.0986	5	3
RS-71	.1660	.0422	5	3
RS-72	.2320	.1574	5	5
SI-70	.1440	.0089	5	1
SP-70	.2060	.0365	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of COPPER
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.03800	0.0	5	1
BL-71	.03800	0.0	5	0
BL-72	.03800	0.0	5	0
CI-70	.23040	.43022	5	1
CI-72	.06040	.05009	5	1
CR-70	.03800	0.0	5	0
CR-71	.03800	0.0	5	0
HY-70	.06640	.06350	5	1
HY-71	.53040	1.10104	5	0
HY-72	.03800	0.0	5	0
MD-70	.04040	.00537	5	1
MI-70	.08680	.07011	5	2
RS-70	.09800	.03963	5	5
RS-71	.09220	.03673	5	4
RS-72	.09720	.05023	5	5
SI-70	.15420	.13937	5	5
SP-70	.34600	.15043	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of IRON
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	2.6400	.2608	5	2
BL-71	2.5000	0.0	5	0
BL-72	2.6200	.2683	5	1
CI-70	2.7400	.3286	5	2
CI-72	2.5000	0.0	5	0
CR-70	2.5000	0.0	5	0
CR-71	2.5000	0.0	5	0
HY-70	2.5000	0.0	5	0
HY-71	2.5000	0.0	5	0
HY-72	2.5000	0.0	5	0
MD-70	2.6400	.3130	5	1
MI-70	2.5000	0.0	5	0
RS-70	2.9400	.4980	5	4
RS-71	2.8000	.5196	5	2
RS-72	2.5600	.1342	5	1
SI-70	3.2000	.7810	5	3
SP-70	4.2000	1.4765	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of LEAD
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.2500	.0442	5	5
BL-71	.2140	.0472	5	5
BL-72	.3080	.1026	5	5
CI-70	.3960	.1330	5	5
CI-72	.3080	.1377	5	5
CR-70	.2220	.0646	5	5
CR-71	.2140	.0737	5	5
HY-70	.2620	.2043	5	4
HY-71	.2640	.0829	5	4
HY-72	.2220	.1062	5	4
MD-70	.1520	.0268	5	1
MI-70	.1400	0.0	5	1
RS-70	.1400	0.0	5	0
RS-71	.1540	.0313	5	1
RS-72	.1780	.0409	5	3
SI-70	.1400	0.0	5	0
SP-70	.1400	0.0	5	1

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of MANGANESE
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.2160	.0358	5	1
BL-71	.2000	0.0	5	0
BL-72	.2120	.0268	5	1
CI-70	.2500	.0825	5	1
CI-72	.3040	.1452	5	1
CR-70	.2000	0.0	5	0
CR-71	.2200	.0447	5	1
HY-70	.3540	.1982	5	4
HY-71	.2640	.0777	5	3
HY-72	.2820	.1429	5	3
MD-70	.2300	.0671	5	1
MI-70	.2300	.0616	5	2
RS-70	.2360	.0805	5	1
RS-71	.2000	0.0	5	0
RS-72	.2000	0.0	5	0
SI-70	.2700	.0959	5	2
SP-70	.2000	0.0	5	0

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of NICKEL
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.09420	.02681	5	3
BL-71	.07660	.00358	5	1
BL-72	.10000	.05590	5	1
CI-70	.09600	.04696	5	1
CI-72	.07700	.00346	5	2
CR-70	.14360	.09572	5	4
CR-71	.08660	.01950	5	2
HY-70	.10800	.07379	5	1
HY-71	.11460	.07634	5	1
HY-72	.07860	.00805	5	1
MD-70	.07500	0.0	5	0
MI-70	.08600	.02460	5	1
RS-70	.29340	.45176	5	3
RS-71	.07500	0.0	5	0
RS-72	.07500	0.0	5	0
SI-70	.08000	.01118	5	1
SP-70	.07500	0.0	5	0

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of SELENIUM
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	1.83400	3.61651	5	4
BL-71	.34200	.11819	5	5
BL-72	.34600	.16365	5	5
CI-70	.14600	.02408	5	5
CI-72	.28200	.11498	5	5
CR-70	.21000	.04359	5	5
CR-71	.13200	.03033	5	3
HY-70	.47000	.63600	5	4
HY-71	.16200	.04868	5	4
HY-72	.11400	.03130	5	2
MD-70	.18200	.17239	5	2
MI-70	.12600	.03715	5	2
RS-70	.31400	.25314	5	5
RS-71	.18400	.10383	5	5
RS-72	.17400	.08820	5	3
SI-70	.19200	.09230	5	4
SP-70	.12800	.04207	5	3

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of SILVER
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.02100	.02193	5	5
BL-71	.01660	.01417	5	5
BL-72	.00620	.00567	5	5
CI-70	.01080	.01417	5	5
CI-72	.00820	.00471	5	5
CR-70	.00900	.00822	5	5
CR-71	.00740	.00720	5	5
HY-70	.05040	.10599	5	5
HY-71	.04340	.08759	5	2
HY-72	.00200	0.0	5	2
MD-70	.00260	.00134	5	3
MI-70	.00220	.00045	5	2
RS-70	.00200	0.0	5	4
RS-71	.00280	.00179	5	3
RS-72	.00200	0.0	5	3
SI-70	.00220	.00045	5	3
SP-70	.00600	.00682	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of ZINC
By levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	4.0800	.6834	5	5
BL-71	3.2600	.3209	5	5
BL-72	5.1000	3.3174	5	5
CI-70	4.3200	1.2194	5	5
CI-72	2.9000	.8746	5	5
CR-70	4.4800	1.8267	5	5
CR-71	2.9600	.1949	5	5
HY-70	2.7400	.2966	5	5
HY-71	3.3600	.6465	5	5
HY-72	3.6600	.4393	5	5
MD-70	3.8600	.4393	5	5
MI-70	3.1800	.2588	5	5
RS-70	3.9400	.5367	5	5
RS-71	3.8000	1.1023	5	5
RS-72	4.0000	1.3565	5	5
SI-70	3.4000	.3808	5	5
Sp-70	3.2000	.2236	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY STATION

Summaries of MERCURY
By Levels of STATION

STATION	Mean	Std Dev	Cases	Cases where detected
BL-70	.05200	.02683	5	1
BL-71	.05000	.00663	5	4
BL-72	.05240	.01452	5	3
CI-70	.04000	0.0	5	0
CI-72	.05080	.02415	5	1
CR-70	.04720	.01213	5	2
CR-71	.06360	.02247	5	4
HY-70	.08840	.04126	5	5
HY-71	.07480	.02313	5	5
HY-72	.07940	.01499	5	5
MD-70	.07240	.02722	5	5
MI-70	.08680	.01874	5	5
RS-70	.04400	.00894	5	1
RS-71	.04200	.00447	5	1
RS-72	.07400	.04980	5	2
SI-70	.04380	.00694	5	2
SP-70	.04200	.00447	5	1

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summary of ANTIMONY
By levels of WATERWAY

	Mean	Std Dev	Cases	Cases where detected
WATERWAY BL	1.0133	.0516	15	1
CI	1.0000	0.0	10	0
CR	1.0700	.2214	10	1
HY	1.0000	0.0	15	1
MD	1.0000	0.0	5	0
MI	1.0000	0.0	5	0
RS	1.0200	.0561	15	2
SI	1.0400	.0894	5	1
SP	1.0000	0.0	5	0

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of ARSENIC
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Cases	Cases where detected
BL	6.6667	5.4846	15	15
CI	2.9700	1.2667	10	10
CR	7.9400	9.2928	10	10
HY	2.9867	1.6919	15	14
MD	2.2800	1.3700	5	5
MI	2.0500	1.0689	5	5
RS	6.2567	6.7819	15	14
SI	1.5800	1.1367	5	4
SP	1.4700	.7791	5	4

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of CADMIUM
By levels of WATERWAY

	Mean	Std Dev	Cases	Cases where detected
WATERWAY BL	.02080	.02748	15	6
CI	.03300	.04280	10	5
CR	.02030	.01539	10	4
HY	.03367	.02699	15	8
MD	.05440	.09257	5	1
MI	.01300	0.0	5	0
RS	.01313	.00052	15	1
SI	.03420	.03363	5	2
SP	.03300	.03349	5	3

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of CHROMIUM
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Cases	Cases where detected
BL	.1913	.0613	15	10
CI	.2030	.1037	10	9
CR	.1900	.0741	10	5
HY	.2420	.1503	15	8
MD	.1400	0.0	5	0
MI	.1680	.0311	5	3
RS	.1980	.1056	15	11
SI	.1440	.0089	5	1
SP	.2060	.0365	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of CUPPER
By levels of WATERWAY

WATERWAY	BL	CI	CR	HY	MD	MI	RS	SI	SP
Mean	.03800	.14540	.03800	.21160	.04040	.08680	.09580	.115420	.34600
Std Dev	0.0	.30233	0.0	.63412	.00537	.07011	.03952	.13937	.15043
Cases	15	10	10	15	5	5	15	5	5
Cases where detected	1	2	0	1	1	1	2	14	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of IRON
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	2.5867	.2100	15	3
CI	2.6200	.2530	10	2
CR	2.5000	0.0	10	0
HY	2.5000	0.0	15	0
MD	2.6400	.3130	5	1
MI	2.5000	0.0	5	0
RS	2.7667	.4237	15	7
SI	3.2000	.7810	5	3
SP	4.2000	1.4765	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of By levels of	LEAD WATERWAY	Mean	Std Dev	Fish	Fish	
					where	detected
WATERWAY	BL	.2573	.0762	15	15	15
	CI	.3520	.1358	10	10	10
	CR	.2180	.0655	10	10	10
	HY	.2493	.1323	15	12	12
	MD	.1520	.0268	5	1	1
	MI	.1400	0.0	5	5	1
	RS	.1573	.0320	15	15	4
	SI	.1400	0.0	5	5	0
	SP	.1400	0.0	5	5	1

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of
By levels of MANGANESE
WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	.2093	.0249	15	2
CI	.2770	.1149	10	2
CR	.2100	.0316	10	1
HY	.3000	.1428	15	10
MD	.2300	.0671	5	1
MI	.2300	.0616	5	2
RS	.2120	.0465	15	1
SI	.2700	.0959	5	2
SP	.2000	0.0	5	0

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of
By levels of NICKEL
WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	.09027	.03476	15	5
CI	.08650	.03295	10	3
CR	.11510	.07172	10	6
HY	.10040	.05918	15	3
MD	.07500	0.0	5	0
MI	.08600	.02460	5	1
RS	.14780	.26395	15	3
SI	.08000	.01118	5	1
SP	.07500	0.0	5	0

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of SELENIUM
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	.84067	2.06813	15	14
CI	.21400	.10617	10	10
CR	.17100	.05425	10	8
HY	.24867	.37840	15	10
MD	.18200	.17239	5	2
MI	.12600	.03715	5	2
RS	.22400	.16724	15	13
SI	.19200	.09230	5	4
SP	.12800	.04207	5	3

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of SILVER
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	.01460	.01566	15	15
CI	.00950	.01005	10	10
CR	.00820	.00733	10	10
HY	.03193	.07675	15	9
MD	.00260	.00134	5	3
MI	.00220	.00045	5	2
RS	.00227	.00103	15	10
SI	.00220	.00045	5	3
SP	.00600	.00682	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of ZINC
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	4.1467	1.9784	15	15
CI	3.6100	1.2494	10	10
CR	3.7200	1.4635	10	10
HY	3.2533	.5975	15	15
MO	3.8600	.4393	5	5
MI	3.1800	.2588	5	5
RS	3.9133	.9812	15	15
SI	3.4000	.3808	5	5
SP	3.2000	.2236	5	5

Total Cases = 85

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR FISH BY WATERWAY

Summaries of MERCURY
By Levels of WATERWAY

WATERWAY	Mean	Std Dev	Fish	Fish where detected
BL	.05147	.01672	15	8
CI	.04540	.01708	10	1
CR	.05540	.01909	10	6
HY	.08087	.02716	15	15
MD	.07240	.02722	5	5
MI	.08680	.01874	5	5
RS	.05333	.03109	15	4
SI	.04380	.00694	5	2
SP	.04200	.00447	5	1

Total Cases = 85

11/29/85 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of ANTIMONY
By Levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	1.0000	0.0	1	0
CI-70	1.0000	0.0	3	0
CI-72	1.6000	.8485	2	1
CR-70	1.0000	0.0	3	0
CR-71	1.0000	0.0	4	0
HY-71	1.0000	0.0	1	0
MD-70	1.0000	0.0	2	0
MI-70	1.0000	0.0	5	0
SI-70	1.0000	0.0	4	0
SP-70	1.0000	0.0	1	0

Total Cases = 26

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11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of ARSENIC
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	1.2000	0.0	1	1
CI-70	2.8000	.4583	3	3
CI-72	2.9500	.2121	2	2
CR-70	2.7333	.1155	3	3
CR-71	2.1000	1.0863	4	4
HY-71	2.0000	0.0	1	1
MO-70	1.9000	.9899	2	2
MI-70	1.3000	.5037	5	5
SI-70	2.1000	1.0893	4	4
SP-70	1.5000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of CADMIUM
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.09200	0.0	1	1
CI-70	.04333	.02237	3	3
CI-72	.14200	.16688	2	2
CR-70	.06967	.00987	3	3
CR-71	.20650	.29030	4	4
HY-71	.01500	0.0	1	1
MD-70	.17500	.10607	2	2
MI-70	.01300	0.0	5	0
SI-70	.04800	.02760	4	4
SP-70	.62000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of CHROMIUM
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.2200	0.0	1	1
CI-70	.2333	.0577	3	3
CI-72	.2000	.0566	2	2
CR-70	.2300	.0917	3	3
CR-71	.2425	.0618	4	1
HY-71	.2600	0.0	1	1
MD-70	.2500	.0707	2	2
MI-70	.1400	0.0	5	0
SI-70	.2625	.0714	4	4
SP-70	.2500	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of COPPER
By levels of STATION

STATION	Mean	Std Dev	Crabs where detected	Crabs where detected
BL-72	4.90000	0.0	1	1
CI-70	6.46667	2.60832	3	3
CI-72	8.40000	3.67696	2	2
CR-70	7.96667	1.84481	3	3
CR-71	8.12500	4.76751	4	4
HY-71	9.10000	0.0	1	1
MD-70	9.00000	2.82843	2	2
MI-70	7.88000	2.06567	5	5
SI-70	8.27500	1.48857	4	4
SP-70	6.10000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of IRON
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	3.1000	0.0	1	1
CI-70	21.4667	27.3067	3	3
CI-72	4.1500	.9192	2	2
CR-70	2.6000	.1732	3	1
CR-71	4.4500	2.5146	4	4
HY-71	4.1000	0.0	1	1
MD-70	12.5000	2.1213	2	2
MI-70	2.8000	.3674	5	4
SI-70	5.6750	2.3272	4	4
SP-70	8.9000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of LEAD
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.1800	0.0	1	1
CI-70	.7800	.7808	3	3
CI-72	.1650	.0354	2	2
CR-70	.2000	.1039	3	2
CR-71	.1925	.1050	4	1
HY-71	.2300	0.0	1	1
MD-70	.3200	.1273	2	2
MI-70	.3060	.1545	5	5
SI-70	.9275	.8962	4	4
SP-70	.1400	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of MANGANESE
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.4100	0.0	1	1
CI-70	.2133	.0231	3	1
CI-72	.3100	.1556	2	1
CR-70	.5800	.6239	3	2
CR-71	.4625	.3587	4	2
HY-71	.3900	0.0	1	1
MD-70	.4050	.2475	2	2
MI-70	.3080	.1080	5	3
SI-70	.2000	0.0	4	0
SP-70	.2000	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of NICKEL
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.07600	0.0	1	0
CI-70	.07500	0.0	3	0
CI-72	.07500	0.0	2	0
CR-70	.07567	.00115	3	2
CR-71	.13125	.11250	4	1
HY-71	.22000	0.0	1	1
MD-70	.12750	.07425	2	1
MI-70	.07500	0.0	5	0
SI-70	.07500	0.0	4	0
SP-70	.07500	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of SELENIUM
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.10000	0.0	1	0
CI-70	.56667	.45092	3	2
CI-72	.26000	.11314	2	2
CR-70	.13333	.05774	3	1
CR-71	.14250	.04924	4	3
HY-71	.16000	0.0	1	1
MD-70	.11000	.01414	2	1
MI-70	.10000	0.0	5	0
SI-70	.10000	0.0	4	0
SP-70	.10000	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of SILVER
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.13000	0.0	1	1
CI-70	.14167	.08520	3	3
CI-72	.18000	.12728	2	2
CR-70	.10667	.10926	3	3
CR-71	.26500	.07326	4	4
HY-71	.02800	0.0	1	1
MD-70	.12900	.05798	2	2
MI-70	.16000	.04301	5	5
SI-70	.13875	.04250	4	4
SP-70	.07300	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of ZINC
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	43.0000	0.0	1	1
CI-70	42.3333	8.0208	3	3
CI-72	46.0000	1.4142	2	2
CR-70	51.0000	12.1655	3	3
CR-71	44.7500	14.6600	4	4
HY-71	44.0000	0.0	1	1
MD-70	42.0000	1.4142	2	2
MI-70	36.2000	5.5408	5	5
SI-70	37.7500	2.6300	4	4
SP-70	36.0000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY STATION

Summaries of MERCURY
By levels of STATION

STATION	Mean	Std Dev	Crabs	Crabs where detected
BL-72	.04000	0.0	1	0
CI-70	.06067	.01332	3	3
CI-72	.07800	.01414	2	2
CR-70	.04000	0.0	3	0
CR-71	.04800	.01347	4	2
HY-71	.22000	0.0	1	1
MD-70	.05000	.01414	2	1
MI-70	.11000	.05916	5	4
SI-70	.16700	.10543	4	4
SP-70	.04000	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of ANTIMONY
By levels of WATERWAY

WATERWAY	BL	CI	CR	HY	MD	MI	SI	Sp
Mean	1.0000	1.2400	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Std Dev	0.0	.5367	0.0	0.0	0.0	0.0	0.0	0.0
Crabs	1	5	7	1	2	5	4	1
Crabs where detected	0	1	0	0	0	0	0	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of ARSENIC
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Crabs	Crabs where detected
BL	1.2000	0.0	1	1
CI	2.8600	.3507	5	5
CR	2.3714	.8423	7	7
HY	2.0000	0.0	1	1
MD	1.9000	.9899	2	2
MI	1.3000	.5037	5	5
SI	2.1000	1.0893	4	4
SP	1.5000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of
By Levels of WATERWAY

	Mean	Std Dev	Crabs	Crabs where detected
WATERWAY				
BL	.09230	0.0	1	1
CI	.08280	.10066	5	5
CR	.14786	.21799	7	7
HY	.01500	0.0	1	1
MD	.17500	.10607	2	2
MI	.01300	0.0	5	0
SI	.04800	.02760	4	4
SP	.62000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of CHROMIUM
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Crabs	Crabs where detected
BL	.2200	0.0	1	1
CI	.2200	.0529	5	5
CR	.2371	.0690	7	4
HY	.2600	0.0	1	1
MD	.2500	.0707	2	2
MI	.1400	0.0	5	0
SI	.2625	.0714	4	4
SP	.2500	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of
By levels of WATERWAY

WATERWAY	BL	CI	CR	HY	MD	MI	SI	SP
	Mean	Std Dev	Crabs	Crabs where detected				
	4.90000	0.0	1	1				
	7.24000	2.81123	5	5				
	8.05714	3.53641	7	7				
	9.10000	0.0	1	1				
	9.00000	2.82843	2	2				
	7.88000	2.06567	5	5				
	8.27500	1.48857	4	4				
	6.10000	0.0	1	1				

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of IRON
By levels of WATERWAY

	Mean	Std Dev	Crabs	Crabs where detected
WATERWAY BL	3.1000	0.0	1	1
CI	14.5400	21.5187	5	5
CR	3.6571	2.0370	7	5
HY	4.1000	0.0	1	1
MD	12.5000	2.1213	2	2
MI	2.8000	.3674	5	4
SI	5.6750	2.3272	4	4
-SP	8.9000	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of
By levels of LEAD
WATERWAY

WATERWAY	BL	Mean	Std Dev	Crabs	Crabs where detected
CI		.1800	0.0	1	1
CR		.5340	.6470	5	5
HY		.1957	.0955	7	3
MD		.2300	0.0	1	1
MI		.3200	.1273	2	2
SI		.3060	.1545	5	5
SP		.9275	.8962	4	4
		.1400	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of
By levels of MANGANESE
WATERWAY

WATERWAY	Mean	Std Dev	Crabs	Crabs where detected
BL	.4100	0.0	1	1
CI	.2520	.0955	5	2
CR	.5129	.4450	7	4
HV	.3900	0.0	1	1
MD	.4050	.2475	2	2
MI	.3080	.1080	5	3
SI	.2000	0.0	4	0
SP	.2000	0.0	1	0

Total Cases = 26

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11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of NICKEL
By levels of WATERWAY

	Mean	Std Dev	Crabs	Crabs where detected
WATERWAY BL	.07600	0.0	1	0
CI	.07500	0.0	5	0
CR	.10743	.08492	7	3
HY	.22000	0.0	1	1
MD	.12750	.07425	2	1
HI	.07500	0.0	5	0
SI	.07500	0.0	4	0
SP	.07500	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of SELENIUM
By levels of WATERWAY

	Mean	Std Dev	Crabs	Crabs where detected
WATERWAY				
BL	.10000	0.0	1	0
CI	.44400	.36480	5	4
CR	.13857	.04845	7	4
HY	.16000	0.0	1	1
MD	.11000	.01414	2	1
MI	.10000	0.0	5	0
SI	.10000	0.0	4	0
SP	.10000	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of SILVER
By levels of WATERWAY

WATERWAY	Mean	Std Dev	Crabs	Crabs where detected
BL	.13000	0.0	1	1
CI	.15700	.09011	5	5
CR	.19714	.11758	7	7
HY	.02800	0.0	1	1
MD	.12900	.05798	2	2
MI	.16000	.04301	5	5
SI	.13875	.04250	4	4
SP	.07300	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of ZINC
By levels of WATERWAY

WATERWAY	BL	CI	CR	HY	MD	MI	SI	SP	Mean	Std Dev	Crabs	Crabs where detected
	43.0000	43.8000	47.4286	44.0000	42.0000	36.2000	37.7500	36.0000	0.0	6.0581	1	1
									0.0	12.9596	5	5
									0.0	0.0	7	7
									0.0	1.4142	1	1
									5.5408	2.6300	2	2
									0.0	0.0	5	5
									0.0	0.0	4	4
									0.0	0.0	1	1

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB BY WATERWAY

Summaries of MERCURY
By levels of WATERWAY

WATERWAY	BL	CI	CR	HY	MD	MI	SI	SP	Mean	Std Dev	Crabs	Crabs where detected
									.04000	0.0	1	0
									.06760	.01513	5	5
									.04457	.01044	7	2
									.22000	0.0	1	1
									.05000	.01414	2	1
									.11000	.05916	5	4
									.16700	.10543	4	4
									.04000	0.0	1	0

Total Cases = 26

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB AND FISH

Undetected compounds:

Barium: undetected; detection limit= 1.4 ppm

Beryllium : undetected; detection limit 0.25 ppm
(detection limit for one crab at MD-70 = 2.5ppm)

Thallium : detected in one fish at RS-70 at 0.25 ppm ;
otherwise undetected at 0.5 ppm
(undetected in 1 fish at SP-70 at 0.2 ppm).

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET
 Summaries of ANTIMONY

	Mean	Std Dev	Cases	Where detected
FISH	1.0093	.0408	75	5
CRAB	1.0632	.2753	19	1
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET
 Summaries of ARSENIC

	Mean	Std Dev	Cases	Where detected
FISH	4.0700	4.4159	75	71
CRAB	1.9842	.8544	19	19
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET
 Summaries of CADMIUM

	Mean	Std Dev	Cases	Where detected
FISH	.02689	.03492	75	26
CRAB	.09200	.14756	19	14
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summaries of CHROMIUM

	Mean	Std Dev	Cases	Where detected
FISH	.1972	.0971	75	47
CRAB	.2147	.0643	19	14
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summaries of COPPER

	Mean	Std Dev	Cases	Where detected
FISH	.13029	.31181	75	31
CRAB	7.72632	2.12912	19	19
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summaries of IRON

	Mean	Std Dev	Cases	Where detected
FISH	2.7560	.6224	75	21
CRAB	7.9211	11.3642	19	18
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summaries of LEAD

	Mean	Std Dev	Cases	Where detected
FISH	.2179	.1100	75	44
CRAB	.4789	.5519	19	19
Total Cases =			94	

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11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET
 Summaries of MANGANESE

	Mean	Std Dev	Cases	Where detected
FISH	.2432	.0915	75	20
CRAB	.2847	.1164	19	9
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summaries of NICKEL

	Mean	Std Dev	Cases	Where detected
FISH	.10029	.12196	75	16
CRAB	.08821	.03995	19	2
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
 STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CAIR INLET

Summaries of SELENIUM

	Mean	Std Dev	Cases	Where detected
FISH	.33307	.95488	75	58
CRAB	.19474	.23064	19	6
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summary of SILVER

	Mean	Std Dev	Cases	Where detected
FISH	.01189	.03605	75	57
CRAB	.13837	.06211	19	19
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summary of ZINC

	Mean	Std Dev	Cases	Where detected
FISH	3.6533	1.1561	75	75
CRAB	39.8947	5.3009	19	19
Total Cases =			94	

11/29/84 COMMENCEMENT BAY TISSUE INORGANICS DATA
STATISTICS FOR CRAB AND FISH - ALL COMMENCEMENT BAY EXCLUDING CARR INLET

Summaries of MERCURY

	Mean	Std Dev	Cases	Where detected
FISH	.05952	.02670	75	41
CRAB	.10295	.07401	19	15
Total Cases =			94	

APPENDIX F

LIVER DATA FROM
COMMENCEMENT BAY BIOACCUMULATION SURVEY

Data summaries provided by Tetra Tech, Inc.
Bellevue, Washington

COMMENCEMENT BAY SUPERFUND INVESTIGATION

SUMMARY OF DATA SYMBOLS

- C = Value for substance is included in the total for a defined combination of unresolved substances
- Q = Questionable data value
- Z = Value corrected for "blank" contributions; resulting value still exceeds the detection limit
- B = Value corrected for "blank" contributions down to the detection limit shown
- U = Substance undetected at the detection limit shown

NOTE: Unreported data values, or data rejected during QA review are shown as blanks in the tables. Hazardous substance list organic compounds not analyzed are summarized at the end of the report.

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

PHENOLS

STATION SAMPLE	phenol	2-methyl-phenol	4-methyl-phenol	2,4-di-methyl-phenol
BL-70 BL70N-L -	U	50	U	U
BL-71 BL71N-L -	U	50	U	50
BL-72 BL72N-L -	U	50	U	50
BLAIR BLABN-L -	Z	310	U	50
BLAIR EHL -L -	U	100	U	100
BLAIR MHL -L -	U	50	U	50
BLAIR MLBL -L -	U	50	U	50
CARR CRABN-L -	U	100	U	100
CI-70 CI70N-L -	U	100	U	100
CI-72 CI72N-L -	U	50	U	50
CITY CIABN-L -	U	100	U	100
CR-70 CR70N-L -	U	50	U	50
CR-71 CR71N-L -	U	50	U	50
HY-70 HY70N-L -	U	50	U	50
HY-71 HY71N-L -	U	100	U	100
HY-72 HY72N-L -	U	50	U	50
HYLBS MHY -L -	U	50	U	50
HYLBS MLHY -L -	U	100	U	100
MD-70 MD70N-L -	U	50	U	50
MI-70 MI70N-L -	U	100	U	100
MIDDLE MDABN-L -	U	50	U	50
MILWA MLMI -L -	U	100	U	100
NRSHR ADCAR-L -	U	250	U	250
RS-70 RS70N-L -	U	50	U	50
RS-71 RS71N-L -01	U	50	U	50
RS-71 RS71N-L -02	U	50	U	50
RS-71 RS71N-L -03	U	50	U	50
RS-72 RS72N-L -	U	50	U	50
RSTON MHS -L -	Z	670	U	250
RSTON RSABN-L -	U	50	U	50
SI-70 SI70N-L -01	U	50	U	50
SI-70 SI70N-L -02	U	100	U	100
SP-70 SP70N-L -	U	50	U	50
STCUM MLST -L -	U	100	U	100
STPAL SPABN-L -	U	100	U	100

SUBSTITUTED PHENOLS

STATION	SAMPLE	2-chloro-phenol	2,4-di-chloro-phenol	4-chloro-3-methyl phenol	2,4,6-tri-chloro-phenol	2,4,5-tri-chloro-phenol	penta-chloro-phenol	2-nitro-phenol	2,4-di-nitro-phenol	4-nitro-phenol	4,6-di-nitro-o-cresol
BL-70	BL70N-L -	U	50	U	U	U	U	U	U	U	U
BL-71	BL71N-L -	U	50	U	U	U	U	U	U	U	U
BL-72	BL72N-L -	U	50	U	U	U	U	U	U	U	U
BLAIR	BLABN-L -	U	50	U	U	U	U	U	U	U	U
BLAIR	EHL -L -	U	100	U	U	U	U	U	U	U	U
BLAIR	MHBL -L -	U	50	U	U	U	U	U	U	U	U
BLAIR	MLBL -L -	U	50	U	U	U	U	U	U	U	U
CARR	CRABN-L -	U	100	U	U	U	U	U	U	U	U
CI-70	CI70N-L -	U	100	U	U	U	U	U	U	U	U
CI-72	CI72N-L -	U	50	U	U	U	U	U	U	U	U
CITY	CIABN-L -	U	100	U	U	U	U	U	U	U	U
CR-70	CR70N-L -	U	50	U	U	U	U	U	U	U	U
CR-71	CR71N-L -	U	50	U	U	U	U	U	U	U	U
HY-70	HY70N-L -	U	50	U	U	U	U	U	U	U	U
HY-71	HY71N-L -	U	100	U	U	U	U	U	U	U	U
HY-72	HY72N-L -	U	50	U	U	U	U	U	U	U	U
HYLBS	MHHY -L -	U	50	U	U	U	U	U	U	U	U
HYLBS	MLHY -L -	U	100	U	U	U	U	U	U	U	U
MI-70	MI70N-L -	U	50	U	U	U	U	U	U	U	U
MIDDL	MDABN-L -	U	50	U	U	U	U	U	U	U	U
MILWA	MLMI -L -	U	100	U	U	U	U	U	U	U	U
NRSHK	AUCAR-L -	U	250	U	U	U	U	U	U	U	U
RS-70	RS70N-L -	U	50	U	U	U	U	U	U	U	U
RS-71	RS71N-L -01	U	50	U	U	U	U	U	U	U	U
RS-71	RS71N-L -02	U	50	U	U	U	U	U	U	U	U
RS-71	RS71N-L -03	U	50	U	U	U	U	U	U	U	U
RS-72	RS72N-L -	U	50	U	U	U	U	U	U	U	U
RSHS	MHS -L -	U	250	U	U	U	U	U	U	U	U
RSTON	RSABN-L -	U	50	U	U	U	U	U	U	U	U
SI-70	SI70N-L -01	U	50	U	U	U	U	U	U	U	U
SI-70	SI70N-L -02	U	100	U	U	U	U	U	U	U	U
SP-70	SP70N-L -	U	50	U	U	U	U	U	U	U	U
TTCUM	MLST -L -	U	100	U	U	U	U	U	U	U	U
TPAL	SPABN-L -	U	100	U	U	U	U	U	U	U	U

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

LOW MOLECULAR WEIGHT AROMATIC HYDROCARBONS

STATION SAMPLE	naphtha- lene	acenaph- thylene	acenaph- thene	fluorene	phenan- threne	anthra- cene
BL-70 BL70N-L -	B	25	U	25	U	25
BL-71 BL71N-L -	Z	120	U	25	U	25
BL-72 BL72N-L -	Z	110	U	25	U	25
BLAIR BLABN-L -	U	25	U	25	U	25
BLAIR EHL -L -	U	50	U	25	U	25
BLAIR MHL -L -	U	25	U	50	U	50
BLAIR MLBL -L -	U	25	U	25	U	25
CARR CRABN-L -	B	50	U	25	U	25
CI-70 CI70N-L -	B	50	U	50	U	50
CI-72 CI72N-L -	Z	30	U	25	U	25
CITY CIABN-L -	B	50	U	50	U	50
CR-70 CR70N-L -	Z	160	U	25	U	25
CR-71 CR71N-L -	U	25	U	25	U	25
HY-70 HY70N-L -	U	25	U	25	U	25
HY-71 HY71N-L -	U	25	U	25	U	25
HY-72 HY72N-L -	U	25	U	25	U	25
HYLBS MHY -L -	U	25	U	25	U	25
HYLBS MLHY -L -	U	50	U	25	U	25
MU-70 MU70N-L -	U	25	U	50	U	25
MI-70 MI70N-L -	B	25	U	25	U	25
MIUL MUABN-L -	U	25	U	25	U	25
MILWA MLMT -L -	U	50	U	25	U	25
NKSHR ADCAR-L -	U	130	U	50	U	50
RS-70 RS70N-L -	Z	240	U	130	U	130
RS-71 RS71N-L -01	U	25	U	25	U	25
RS-71 RS71N-L -02	U	25	U	25	U	25
RS-71 RS71N-L -03	U	25	U	25	U	25
RS-72 RS72N-L -	B	25	U	25	U	25
RS70N MRS -L -	U	130	U	25	U	25
RSTON RSABN-L -	U	25	U	130	U	130
SI-70 SI70N-L -01	U	25	U	25	U	25
SI-70 SI70N-L -02	B	25	U	25	U	25
SP-70 SP70N-L -	U	25	U	25	U	25
STCUM MLSI -L -	U	50	U	25	U	25
STPAL SPABN-L -	U	50	U	50	U	50

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

HIGH MOLECULAR WEIGHT PAH

STATION SAMPLE

STATION SAMPLE	fluor- anthene	pyrene	benzo(a) anthra- cene	chrysene	benzo(b) fluor- anthene	benzo(k) fluor- anthene	benzo(a) pyrene	indeno- (1,2, 3-cd) pyrene	dibenzo- (a,h)an- thracene	benzo- (ghi) perylene
BL-70 BL70N-L -	25	25	25	25	25	25	25	25	50	25
BL-71 BL71N-L -	25	25	25	25	25	25	25	25	50	25
BL-72 BL72N-L -	25	25	25	25	25	25	25	25	50	25
BLAIR BLABN-L -	25	25	25	25	25	25	25	25	50	25
BLAIR EHBL -L -	50	50	50	50	50	50	50	50	100	50
BLAIR MHBL -L -	25	25	25	25	25	25	25	25	50	25
BLAIR MLBL -L -	25	25	25	25	25	25	25	25	50	25
CARR CRABN-L -	50	50	50	50	50	50	50	50	100	50
CI-70 CI70N-L -	50	50	50	50	50	50	50	50	100	50
CI-72 CI72N-L -	25	25	25	25	25	25	25	25	50	25
CITY CIABN-L -	50	50	50	50	50	50	50	50	100	50
CR-70 CR70N-L -	25	25	25	25	25	25	25	25	50	25
CR-71 CR71N-L -	25	25	25	25	25	25	25	25	50	25
HY-70 HY70N-L -	25	25	25	25	25	25	25	25	50	25
HY-71 HY71N-L -	25	25	25	25	25	25	25	25	50	25
HY-72 HY72N-L -	25	25	25	25	25	25	25	25	50	25
HYLBS MHY -L -	25	25	25	25	25	25	25	25	50	25
HYLBS MLHY -L -	50	50	50	50	50	50	50	50	100	50
MO-70 MO70N-L -	25	25	25	25	25	25	25	25	50	25
MI-70 MI70N-L -	25	25	25	25	25	25	25	25	50	25
MI00L MJABN-L -	25	25	25	25	25	25	25	25	50	25
MLWA MLMI -L -	50	50	50	50	50	50	50	50	100	50
NRSHK ADCAR-L -	130	130	130	130	130	130	130	130	250	130
RS-70 RS70N-L -	25	25	25	25	25	25	25	25	50	25
RS-71 RS71N-L -01	25	25	25	25	25	25	25	25	50	25
RS-71 RS71N-L -02	25	25	25	25	25	25	25	25	50	25
RS-71 RS71N-L -03	25	25	25	25	25	25	25	25	50	25
RS-72 RS72N-L -	25	25	25	25	25	25	25	25	50	25
RSTON MHKS -L -	130	130	130	130	130	130	130	130	250	130
RSTON RSABN-L -	25	25	25	25	25	25	25	25	50	25
SI-70 SI70N-L -01	25	25	25	25	25	25	25	25	50	25
SI-70 SI70N-L -02	50	50	50	50	50	50	50	50	100	50
SP-70 SP70N-L -	25	25	25	25	25	25	25	25	50	25
STCUM MLST -L -	50	50	50	50	50	50	50	50	100	50
STPAL SPABN-L -	50	50	50	50	50	50	50	50	100	50

STATION SAMPLE

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COMMENCEMENT BAY BP'S ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

CHLORINATED ALIPHATIC HYDROCARBONS

STATION SAMPLE	hexa- chloro- ethane	total tri- chloro- buta- dienes	total tetra- chloro- buta- dienes	total penta- chloro- buta- dienes	hexa- chloro- buta- diene	hexa- chloro- cyclo- penta- diene
BL-70 BL70N-L -	U	50	U	U	50	50
BL-71 BL71N-L -	U	50	U	U	50	50
BL-72 BL72N-L -	U	50	U	U	50	50
BLAIR BLABN-L -	U	50	U	U	50	50
BLAIR EHL -L -	U	200	U	100	U	100
BLAIR MHL -L -	U	100	U	U	50	50
BLAIR MLBL -L -	U	100	U	U	50	50
CANK CRABN-L -	U	200	U	100	U	100
CI-70 CI70N-L -	U	200	U	100	U	100
CI-72 CI72N-L -	U	100	U	U	50	50
CITY CIABN-L -	U	200	U	100	U	100
CR-70 CR70N-L -	U	100	U	U	50	50
CR-71 CR71N-L -	U	100	U	U	50	50
HY-70 HY70N-L -	U	100	U	U	50	50
HY-71 HY71N-L -	U	100	U	U	50	50
HY-72 HY72N-L -	U	100	U	U	50	50
HYLBS MHY -L -	U	200	U	100	U	100
HYLBS MLHY -L -	U	100	U	U	50	50
MI-70 MI70N-L -	U	100	U	U	50	50
MI-71 MI71N-L -	U	100	U	U	50	50
MI-72 MI72N-L -	U	100	U	U	50	50
MILWA MLMT -L -	U	200	U	100	U	100
MILWA MLCAN-L -	U	500	U	200	U	250
NS-70 NS70N-L -	U	100	U	U	50	50
NS-71 NS71N-L -01	U	100	U	U	50	50
NS-71 NS71N-L -02	U	100	U	U	50	50
NS-71 NS71N-L -03	U	100	U	U	50	50
NS-72 NS72N-L -	U	100	U	U	50	50
RSTON MHS -L -	U	500	U	200	U	250
RSTON RSABN-L -	U	100	U	U	50	50
SI-70 SI70N-L -01	U	100	U	U	50	50
SI-70 SI70N-L -02	U	200	U	100	U	100
SP-70 SP70N-L -	U	100	U	75	U	75
STCUM MLI -L -	U	200	U	100	U	100
STPAL SPABN-L -	U	200	U	100	U	100

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

HALOGENATED ETHERS

STATION SAMPLE	bis(2-chloro-ethyl)-ether	bis(2-chloro-isopropyl)-ether	bis(2-chloro-ethoxy)-methane	4-chloro-phenyl ether	4-bromo-phenyl ether
BL-70 BL70N-L -	50	50	50	25	50
BL-71 BL71N-L -	50	50	50	25	50
BL-72 BL72N-L -	50	50	50	25	50
BLAIR BLABN-L -	50	50	50	25	50
BLAIR EBHL -L -	100	100	100	50	100
BLAIR MBHL -L -	50	50	50	25	50
BLAIR MLBL -L -	50	50	50	25	50
CARR CRABN-L -	100	100	100	50	100
CI-70 CI70N-L -	100	100	100	50	100
CI-72 CI72N-L -	50	50	50	25	50
CITY CIAbN-L -	100	100	100	50	100
CR-70 CR70N-L -	50	50	50	25	50
CR-71 CR71N-L -	50	50	50	25	50
HY-70 HY70N-L -	50	50	50	25	50
HY-71 HY71N-L -	50	50	50	25	50
HY-72 HY72N-L -	50	50	50	25	50
HYLBS MHY -L -	50	50	50	25	50
HYLBS MLHY -L -	100	100	100	50	100
MI-70 MI70N-L -	50	50	50	25	50
MI-71 MI71N-L -	50	50	50	25	50
MIDDL MDABN-L -	50	50	50	25	50
MILWA MLMI -L -	100	100	100	50	100
MRSHR ADCAR-L -	250	250	250	130	250
KS-70 KS70N-L -	50	50	50	25	50
KS-71 KS71N-L -01	50	50	50	25	50
KS-71 KS71N-L -02	50	50	50	25	50
KS-71 KS71N-L -03	50	50	50	25	50
KS-72 KS72N-L -	50	50	50	25	50
KSTON MHKS -L -	250	250	250	130	250
KSTON KSABN-L -	50	50	50	25	50
SI-70 SI70N-L -01	50	50	50	25	50
SI-70 SI70N-L -02	100	100	100	50	100
SP-70 SP70N-L -	50	50	50	25	50
STCUM MLSI -L -	100	100	100	50	100
STPAL SPABN-L -	100	100	100	50	100

PHTHALATES

STATION	SAMPLE	dimethyl phtha- late	diethyl phtha- late	di-n- butyl phtha- late	butyl benzyl phtha- late	bis(2- ethyl- hexyl)- phtha- late	di-n- octyl phtha- late
BL-70	BL70N-L -	U	25	U	25	U	25
BL-71	BL71N-L -	U	25	U	25	U	25
BL-72	BL72N-L -	U	25	U	25	U	25
BLAIR	BLABN-L -	U	25	U	25	U	25
BLAIR	EHBL -L -	U	50	U	50	U	50
BLAIR	MHBL -L -	U	25	U	25	U	25
BLAIR	MLBL -L -	U	25	U	25	U	25
CARR	CRABN-L -	U	50	U	50	U	50
C1-70	C170N-L -	U	50	U	50	U	50
C1-72	C172N-L -	U	25	U	25	U	25
CITY	CIABN-L -	U	50	U	50	U	50
CR-70	CR70N-L -	U	25	U	1000	U	25
CR-71	CR71N-L -	U	25	U	25	U	25
HY-70	HY70N-L -	U	25	U	25	U	25
HY-71	HY71N-L -	U	25	U	25	U	25
HY-72	HY72N-L -	U	25	U	25	U	25
HYLBS	MHHY -L -	U	25	U	25	U	25
HYLBS	MLHY -L -	U	50	U	25	U	25
MI-70	MI70N-L -	U	25	U	25	U	25
MI-70	M170N-L -	U	25	U	25	U	25
MIDDL	MDABN-L -	U	25	U	25	U	25
MILWA	MLM1 -L -	U	50	U	50	U	50
NRSKR	ADCAR-L -	U	130	U	130	U	130
RS-70	RS70N-L -	U	25	U	25	U	25
RS-71	RS71N-L -01	U	25	U	25	U	25
RS-71	RS71N-L -02	U	25	U	25	U	25
RS-71	RS71N-L -03	U	25	U	25	U	25
RS-72	RS72N-L -	U	25	U	25	U	25
RS-72	MHRS -L -	U	130	U	130	U	130
RS-72	RSABN-L -	U	25	U	25	U	25
RS-72	RS72N-L -01	U	25	U	25	U	25
SI-70	SI70N-L -01	U	25	U	25	U	25
SI-70	SI70N-L -02	U	50	U	50	U	50
SP-70	SP70N-L -	U	25	U	25	U	25
STCUM	MLST -L -	U	50	U	50	U	50
STPAL	SPAUN-L -	U	50	U	50	U	50

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

MISCELLANEOUS OXYGENATED COMPOUNDS

STATION SAMPLE	isophor- one	benzyl alcohol	benzoic acid	2,3,7,8- TCDD	dibenzo- furan
BL-70 BL70N-L -	25	50	100	U	25
BL-71 BL71N-L -	U	50	U	U	25
BL-72 BL72N-L -	U	50	U	U	25
BLAIR BLABN-L -	U	1600	U	U	25
BLAIR EHL -L -	U	450	U	U	50
BLAIR MHL -L -	U	400	U	U	25
BLAIR MLBL -L -	U	990	U	U	25
CARR CRABN-L -	U	100	U	U	50
CI-70 CI70N-L -	U	100	U	U	50
CI-72 CI72N-L -	U	50	U	U	25
CITY CIABN-L -	U	100	U	U	50
CR-70 CR70N-L -	U	50	U	U	25
CR-71 CR71N-L -	U	50	U	U	25
HY-70 HY70N-L -	U	50	U	U	25
HY-71 HY71N-L -	U	50	U	U	25
HY-72 HY72N-L -	U	570	U	U	25
HYLBS MHY -L -	U	1100	U	U	25
HYLBS MLHY -L -	U	100	U	U	50
MD-70 MD70N-L -	U	690	U	U	25
MI-70 MI70N-L -	U	320	U	U	25
MIDDLE MDABN-L -	U	220	U	U	25
MILWA MLMI -L -	U	100	U	U	50
NPSHR ADCAR-L -	130	8100	U	U	130
RS-70 RS70N-L -	U	50	U	U	25
RS-71 RS71N-L -01	U	50	U	U	25
RS-71 RS71N-L -02	U	50	U	U	25
RS-71 RS71N-L -03	U	860	U	U	25
RS-72 RS72N-L -	U	50	U	U	25
RSTON MHS -L -	130	14000	U	U	130
RSTON MSABN-L -	U	50	U	U	25
SI-70 SI70N-L -01	U	50	U	U	25
SI-70 SI70N-L -02	U	100	U	U	50
SP-70 SP70N-L -	U	50	U	U	25
STCUM MLI -L -	U	100	U	U	50
STPAL SPABN-L -	U	100	U	U	50

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

ORGANONITROGEN COMPOUNDS

STATION SAMPLE															
1,2-di-phenyl-hydrazine	benzidine	aniline	3,3'-di-chloro-benzidine	nitro-benzene	N-nitroso-dipropyl amine	4-chloro-aniline	2-nitro-aniline	3-nitro-aniline	4-nitro-aniline	N-nitroso-dimethyl amine	2,6-di-nitro-toluene	2,4-di-nitro-toluene	N-nitroso-diphenyl-amine		
MI-70 U	MI7UN-L - 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
MIDUL U	MDABN-L - 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
MILWA U	MLMI -L - 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
NRSHR U	ADCAR-L - 250	U	500	U	250	U	500	U	1000	U	250	U	500	U	250
RS-70 U	RS7UN-L - 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
RS-71 U	RS71N-L -01 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
RS-71 U	RS71N-L -02 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
RS-71 U	RS71N-L -03 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
RS-72 U	RS72N-L - 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
RSTON U	MHS -L - 250	U	500	U	250	U	500	U	1000	U	250	U	500	U	250
RSTON U	RSABN-L - 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
SI-70 U	SI7ON-L -01 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
SI-70 U	SI7ON-L -02 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
SP-70 U	SP7ON-L - 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
STCUM U	MLSI -L - 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
STPAL U	SPABN-L - 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

ORGANONITROGEN COMPOUNDS

STATION SAMPLE														
1,2-di-phenyl-hydra-zine	benzi-dine	aniline	nitro-benzene	N-nitroso-dipropyl amine	4-chloro-aniline	2-nitro-aniline	3-nitro-aniline	4-nitro-aniline	N-nitroso-dimethyl amine	2,6-di-nitro-toluene	2,4-di-nitro-toluene	N-nitroso-diphenyl-amine		
BL-70 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
BL-71 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
BL-72 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
BLAIR U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
BLAIR U 50	U	200	U	100	U	200	U	400	U	100	U	200	U	100
EBHL U 100	U	100	U	50	U	100	U	200	U	50	U	100	U	50
MBHL U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
MLBL U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
CARR U 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
CI-70 U 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
CI-72 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
CITY U 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
CR-70 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
CR-71 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
HY-70 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
HY-71 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
HY-72 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
HYLBS U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50
MLHY U 100	U	200	U	100	U	200	U	400	U	100	U	200	U	100
MO-70 U 50	U	100	U	50	U	100	U	200	U	50	U	100	U	50

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

PESTICIDES I

STATION SAMPLE	4,4'-DDE	4,4'-DDD	4,4'-DDT	aldrin	dieldrin	a-HCH	b-HCH	d-HCH	g-HCH
BL-70 BL70N-L -	U	100	100	100	U	U	U	100	U
BL-71 BL71N-L -	U	100	100	100	U	U	U	100	U
BL-72 BL72N-L -	U	100	100	100	U	U	U	100	U
BLAIR BLABN-L -	U	100	100	100	U	U	U	100	U
BLAIR EHL -L -	U	200	200	200	U	U	U	200	U
BLAIR MHL -L -	U	200	200	200	U	U	U	200	U
BLAIR MLBL -L -	U	200	200	200	U	U	U	200	U
CARR CRABN-L -	U	200	200	200	U	U	U	200	U
CI-70 C170N-L -	U	200	200	200	U	U	U	200	U
CI-72 C172N-L -	U	100	100	100	U	U	U	200	U
CITY CIABN-L -	U	200	200	200	U	U	U	200	U
CR-70 CR70N-L -	U	100	100	100	U	U	U	100	U
CR-71 CR71N-L -	U	100	100	100	U	U	U	100	U
HY-70 HY70N-L -	U	100	100	100	U	U	U	100	U
HY-71 HY71N-L -	U	200	200	200	U	U	U	200	U
HY-72 HY72N-L -	U	200	200	200	U	U	U	200	U
HYLBS MHY -L -	U	200	200	200	U	U	U	200	U
HYLBS MLHY -L -	U	200	200	200	U	U	U	200	U
MD-70 MD70N-L -	U	100	100	100	U	U	U	100	U
MI-70 MI70N-L -	U	100	100	100	U	U	U	100	U
MIDDLE MDABN-L -	U	100	100	100	U	U	U	100	U
MILWA MLMI -L -	U	100	100	100	U	U	U	100	U
NRSHK ADCAR-L -	U	500	500	500	U	U	U	200	U
RS-70 RS70N-L -	U	100	100	100	U	U	U	500	U
RS-71 RS71N-L -01	U	150	150	150	U	U	U	100	U
RS-71 RS71N-L -02	U	150	150	150	U	U	U	150	U
RS-71 RS71N-L -03	U	200	200	200	U	U	U	150	U
RS-72 RS72N-L -	U	200	200	200	U	U	U	200	U
RS-72 RS72N-L -	U	200	200	200	U	U	U	200	U
RSTON MRS -L -	U	500	500	500	U	U	U	500	U
RSTON RSABN-L -	U	200	200	200	U	U	U	500	U
SI-70 SI70N-L -01	U	200	200	200	U	U	U	200	U
SI-70 SI70N-L -02	U	200	200	200	U	U	U	200	U
SP-70 SP70N-L -	U	200	200	200	U	U	U	200	U
STCUM MLSI -L -	U	200	200	200	U	U	U	200	U
STPAL SPABN-L -	U	200	200	200	U	U	U	200	U

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

PESTICIDES II

STATION SAMPLE	chlor- dane	a-endo- sulfan	b-endo- sulfan	endo- sulfate	endrin	endrin aldehyde	hepta- chlor	hepta- chlor epoxide	toxa- phene
BL-70 BL70N-L -	U	100	U	U	U	100	U	U	100
BL-71 BL71N-L -	U	100	U	U	U	100	U	U	100
BL-72 BL72N-L -	U	100	U	U	U	100	U	U	100
BLAIR BLA8N-L -	U	100	U	U	U	100	U	U	100
BLAIR EMBL -L -	U	200	U	U	U	200	U	U	200
BLAIR MBL -L -	U	200	U	U	U	200	U	U	200
BLAIR MLBL -L -	U	200	U	U	U	200	U	U	200
CARR CRA8N-L -	U	200	U	U	U	200	U	U	200
CI-70 CI70N-L -	U	200	U	U	U	200	U	U	200
CI-72 CI72N-L -	U	100	U	U	U	100	U	U	100
CITY CIABN-L -	U	200	U	U	U	200	U	U	200
CR-70 CR70N-L -	U	100	U	U	U	100	U	U	100
CR-71 CR71N-L -	U	100	U	U	U	100	U	U	100
HY-70 HY70N-L -	U	100	U	U	U	100	U	U	100
HY-71 HY71N-L -	U	200	U	U	U	100	U	U	100
HY-72 HY72N-L -	U	200	U	U	U	200	U	U	200
HYLBS MHY -L -	U	200	U	U	U	200	U	U	200
HYLBS MLHY -L -	U	200	U	U	U	200	U	U	200
MD-70 MD70N-L -	U	200	U	U	U	200	U	U	200
MI-70 MI70N-L -	U	100	U	U	U	100	U	U	100
MIDDLE MDABN-L -	U	100	U	U	U	100	U	U	100
MILWA MLMI -L -	U	200	U	U	U	200	U	U	200
NRSNR ADCAR-L -	U	500	U	U	U	200	U	U	500
RS-70 RS70N-L -	U	100	U	U	U	500	U	U	100
RS-71 RS71N-L -01	U	150	U	U	U	100	U	U	150
RS-71 RS71N-L -02	U	150	U	U	U	150	U	U	150
RS-71 RS71N-L -03	U	200	U	U	U	150	U	U	150
RS-72 RS72N-L -	U	200	U	U	U	200	U	U	200
RSTON MHKS -L -	U	500	U	U	U	200	U	U	500
RSTON RSABN-L -	U	200	U	U	U	500	U	U	200
SI-70 SI70N-L -01	U	200	U	U	U	200	U	U	200
SI-70 SI70N-L -02	U	200	U	U	U	200	U	U	200
SP-70 SP70N-L -	U	200	U	U	U	200	U	U	200
STCUM ML51 -L -	U	200	U	U	U	200	U	U	200
STPAL SPABN-L -	U	200	U	U	U	200	U	U	200

COMMENCEMENT BAY BPS ORGANIC CHEMICALS DATA 12/10/84
Values in ppb

STATION SAMPLE	PCBS						
	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
BL-70 BL70N-L -				U	U	4600	U
BL-71 BL71N-L -				U	U	2000	U
BL-72 BL72N-L -				U	U	1500	U
BLAIR BLABN-L -				U	U	3000	U
BLAIR EHBL -L -				U	U	3100	U
BLAIR MHBL -L -				U	U	2900	U
BLAIR MLBL -L -				U	U	1900	U
CARR CRABN-L -				U	U	240	U
CI-70 CI70N-L -				U	U	1600	U
CI-72 CI72N-L -				U	U	2200	U
CITY CIABN-L -				U	U	1100	U
CR-70 CR70N-L -				U	U	220	U
CR-71 CR71N-L -				U	U	300	U
HY-70 HY70N-L -				U	U	3200	U
HY-71 HY71N-L -				U	U	2300	U
HY-72 HY72N-L -				U	U	1900	U
HYLBS MHY -L -				U	U	2100	U
HYLBS MLHY -L -				U	U	11000	U
MD-70 MD70N-L -				U	U	1300	U
MI-70 MI70N-L -				U	U	1400	U
MIDDL MDABN-L -				U	U	1900	U
MILWA MLMI -L -				U	U	2500	U
NRSHR ADCAR-L -				U	U	1800	U
RS-70 RS70N-L -				U	U	620	U
RS-71 RS71N-L -01				U	U	1100	U
RS-71 RS71N-L -02				U	U	1100	U
RS-71 RS71N-L -03				U	U	910	U
RS-72 RS72N-L -				U	U	940	U
RSTON MRS -L -				U	U	970	U
RSTON RSABN-L -				U	U	1100	U
SI-70 SI70N-L -01				U	U	1300	U
SI-70 SI70N-L -02				U	U	1000	U
SP-70 SP70N-L -				U	U	1000	U
STCUM MLST -L -				U	U	2600	U
STPAL SPABN-L -				U	U	1700	U

THE FOLLOWING GROUPS WERE NOT ANALYSED:

VOLATILE HALOGENATED ALKANES I

STATION SAMPLE	dichloro di- fluoro methane	chloro- methane	bromo- methane	chloro- ethane	di- chloro- methane	fluoro- tri- chloro- methane	1,1-di- chloro- ethane	chloro- form	1,2-di- chloro- ethane
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VOLATILE HALOGENATED ALKANES II

STATION SAMPLE	1,1,1- tri- chloro- ethane	tetra- chloro- methane	di- chloro- bromo- methane	1,2-di- chloro- propane	chloro- dibromo- methane	1,1,2- tri- chloro- ethane	bromo- form	1,1,2,2- tetra- chloro- ethane
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VOLATILE HALOGENATED ALKENES

STATION SAMPLE	vinyl chloride	1,1-di- chloro- ethylene	1,2- trans- dichloro ethylene	cis-1,3- di- chloro- propene	trans- 1,3-di- chloro- propene	tri- chloro- ethylene	tetra- chloro- ethylene
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VOLATILE AROMATIC HYDROCARBONS

STATION SAMPLE	benzene	toluene	ethyl- benzene	styrene	total xylenes	o-xylene
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VOLATILE UNSATURATED CARBONYL COMPOUNDS

STATION SAMPLE	acrolein	acrylon- itrile
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VOLATILE ETHERS

STATION SAMPLE	bis- (chloro- methyl)- ether	2-chloro ethyl- vinyl- ether
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VOLATILE KETONES

STATION SAMPLE	acetone	2- butanone	2- hexanone	4-methyl- 2- pentanone
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MISCELLANEOUS VOLATILE COMPOUNDS

STATION SAMPLE	carbon disulfide	vinyl acetate
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COMMENCEMENT BAY BPS INORGANIC CHEMICALS DATA 12/11/84

STATION SAMPLE	ANTIMONY	ARSENIC	BARIUM	BERYLLIUM	CADMIUM	CHROMIUM
BL-70 BL70N-L -			0.05	00.001	0.41	00.22
BL-71 BL71N-L -		Q9.0	0.07	00.001	0.42	00.87
BL-72 BL72N-L -		Q3.1	0.02	00.001	0.34	00.40
BLAIR BLABN-L -			0.09	00.002	0.49	00.67
BLAIR EHBL -L -			0.09	00.001	0.43	00.31
BLAIR MHBL -L -		Q5.8	0.02	00.002	0.39	00.41
BLAIR MLBL -L -			0.28	00.002	0.43	00.64
CARR CRABN-L -		Q3.5	1.7	00.002	0.42	00.26
C1-70 C170N-L -			0.67	00.002	0.40	00.32
C1-72 C172N-L -		Q7.5	00.02	00.002	0.52	00.25
CITY CIABN-L -			0.07	00.002	0.43	00.69
CR-70 CR70N-L -		Q6.8	0.04	00.001	0.43	00.52
CR-71 CR71N-L -		Q15.4	0.12	00.001	0.38	00.22
HY-70 HY70N-L -		Q5.9	0.15	00.001	0.36	00.49
HY-71 HY71N-L -		Q5.9	0.03	00.001	0.33	00.33
HY-72 HY72N-L -		Q5.1	0.04	00.001	0.37	00.32
HYLBS MHY -L -			0.05	00.001	0.34	00.44
HYLBS MLHY -L -			0.04	00.002	0.50	00.56
MD-70 MD70N-L -			0.04	00.001	0.37	00.19
MI-70 MI70N-L -			0.21	00.002	0.54	00.54
MIDDLE MDABN-L -		Q75.	4.4	00.002	0.35	Q12.
MILWA MLMI -L -		Q4.1	0.07	00.002	0.50	Q1.6
NKSHR ADCAR-L -			0.03	00.001	0.21	00.16
RS-70 RS70N-L -			0.07	00.001	0.34	00.31
RS-71 RS71N-L -02			0.13	00.001	0.57	00.32
RS-71 RS71N-L -04			0.18	00.002	0.69	00.44
RS-71 RS71N-L -01		Q18.7	0.09	00.002	0.83	00.22
RS-71 RS71N-L -03		Q21.9	0.06	00.002	0.64	00.19
RS-72 RS72N-L -		Q8.1	0.44	00.002	0.66	00.47
RSTON MHS -L -			0.10	00.002	0.38	00.29
RSTON MSABN-L -			0.04	00.001	0.54	00.15
SI-70 SI70N-L -01			0.33	00.002	0.51	00.40
SI-70 SI70N-L -02		Q18.6	0.12	00.002	0.45	00.31
SI-70 SI70N-L -04		Q6.6	0.14	00.001	0.44	00.50
SI-70 SI70N-L -03		Q4.9	0.56	00.002	0.46	00.47
SP-70 SP70N-L -			0.10	00.001	0.54	00.51
STCUM MLSI -L -			0.16	00.001	0.41	00.65
STPAL SPABN-L -		Q9.3	0.18	00.002	0.66	00.55

COMMENCEMENT BAY BPS INORGANIC CHEMICALS DATA 12/11/84

STATION SAMPLE	COPPER	IRON	LEAD	MANGANESE	NICKEL	SELENIUM
BL-70 BL70N-L -	3.9	420	00.29	1.4	0.21	02.2
BL-71 BL71N-L -	3.4	460	00.54	1.1	0.34	00.41
BL-72 BL72N-L -	3.9	450	00.37	1.6	0.50	02.0
BLAIR BLABN-L -	5.9	670	00.46	2.3	0.73	00.009
BLAIR EHL -L -	3.9	860	00.64	1.1	0.11	00.08
BLAIR MHL -L -	5.9	800	00.38	1.4	0.78	00.009
BLAIR MLBL -L -	7.2	470	00.50	1.5	0.77	01.2
CARR CRABN-L -	3.6	83	00.05	1.1	0.52	00.13
CI-70 CI70N-L -	3.6	310	00.86	1.1	0.47	00.27
CI-72 CI72N-L -	4.5	430	00.21	1.5	0.38	00.63
CITY CIABN-L -	4.4	410	00.71	1.8	0.72	01.3
CR-70 CR70N-L -	5.3	150	00.64	1.5	0.39	00.006
CR-71 CR71N-L -	9.1	170	00.89	1.6	0.38	01.3
HY-70 HY70N-L -	7.1	350	00.37	1.2	0.43	01.1
HY-71 HY71N-L -	3.4	600	00.30	1.5	0.36	00.12
HY-72 HY72N-L -	8.4	490	00.98	2.1	0.38	01.6
HYLBS MHY -L -	4.9	430	00.36	1.6	0.55	00.16
HYLBS MLHY -L -	4.9	650	01.3	1.8	0.60	03.6
MD-70 MD70N-L -	4.4	390	00.53	1.8	0.31	00.16
MI-70 MI70N-L -	6.8	680	086.	2.3	0.33	02.9
MIDDL MDABN-L -	189.	800	010.	2.1	0.92	00.36
MILWA MLMT -L -	6.4	500	00.53	2.0	0.67	00.80
NKSHR ADCAR-L -	3.4	420	02.5	1.0	0.23	01.3
RS-70 RS70N-L -	7.4	170	00.98	1.4	0.48	01.4
RS-71 RS71N-L -02	10.4	180	02.2	2.3	0.56	00.97
RS-71 RS71N-L -04	13.2	150	01.5	2.3	0.84	00.73
RS-71 RS71N-L -01	9.5	180	02.5	1.9	0.25	00.01
RS-71 RS71N-L -03	10.3	170	00.62	2.2	0.28	00.78
RS-72 RS72N-L -	12.0	350	00.86	2.4	0.43	01.4
RSTON MIRS -L -	5.7	160	00.26	1.3	0.48	00.78
RSTON RSABN-L -	9.7	250	00.88	1.8	0.42	02.0
SI-70 SI70N-L -01	6.2	640	02.9	1.8	0.60	01.6
SI-70 SI70N-L -02	6.0	630	07.2	1.8	0.73	00.95
SI-70 SI70N-L -04	5.2	520	01.0	1.7	0.65	02.0
SI-70 SI70N-L -03	6.2	500	00.96	2.2	0.76	00.29
SP-70 SP70N-L -	5.4	420	00.62	1.5	0.38	00.06
STCUM MLSI -L -	5.2	760	01.8	1.6	0.72	00.38
STPAL SPABN-L -	7.1	340	00.35	1.7	0.51	01.2

COMMENCEMENT BAY BPS INORGANIC CHEMICALS DATA 12/11/84

STATION	SAMPLE	SILVER	THALLIUM	ZINC	CYANIDE	COBALT	MERCURY
BL-70	BL70N-L -	0.054	0.053	19.8			0.090
BL-71	BL71N-L -	0.053	0.049	21.6			0.084
BL-72	BL72N-L -	0.070	0.012	21.4			0.051
BLAIR	BLABN-L -	0.072	0.011	19.7			0.12
BLAIR	EBHL -L -	0.025	0.007	21.7			0.14
BLAIR	MHBL -L -	0.009	0.009	15.2			0.070
BLAIR	MLBL -L -	0.04	0.016	16.7			0.13
CARR	CRABN-L -	0.047	0.009	12.5			0.034
CI-70	CI70N-L -	0.016	0.008	17.8			0.068
CI-72	CI72N-L -	0.092	0.038	9.6			0.10
CITY	CIABN-L -	0.041	0.038	24.9			0.064
CR-70	CR70N-L -	0.11	0.035	23.8			0.052
CR-71	CR71N-L -	0.22	0.005	25.4			0.067
HY-70	HY70N-L -	0.031	0.016	15.7			0.057
HY-71	HY71N-L -	0.052	0.020	20.1			0.090
HY-72	HY72N-L -	0.10	0.014	41.7			0.076
HYLBS	MHY -L -	0.028	0.008	17.			0.090
HYLBS	MLHY -L -	0.11	0.018	21.0			0.12
MO-70	MO70N-L -	0.031	0.029	17.3			0.042
MI-70	MI70N-L -	1.5	0.052	10.6			0.11
MIDUL	MDABN-L -	1.03	0.011	29.3			0.080
MILWA	MLMI -L -	0.29	0.061	14.6			0.062
NRSHR	ADCAR-L -	0.13	0.013	21.0			0.088
RS-70	RS70N-L -	0.079	0.020	31.8			0.094
RS-71	RS71N-L -02	0.18	0.033	26.2			0.093
RS-71	RS71N-L -04	0.12	0.023	26.6			0.086
RS-71	RS71N-L -01	0.14	0.031	14.8			0.11
RS-71	RS71N-L -03	0.10	0.008	20.8			0.10
RS-72	RS72N-L -	0.14	0.028	21.9			0.098
RSTON	MHRS -L -	0.046	0.012	12.7			0.080
RSTON	RSABN-L -	0.054	0.007	22.8			0.090
SI-70	SI70N-L -01	0.16	0.013	24.2			0.087
SI-70	SI70N-L -02	0.25	0.016	18.1			0.099
SI-70	SI70N-L -04	0.11	0.020	21.9			0.042
SI-70	SI70N-L -03	0.086	0.017	17.7			0.080
SP-70	SP70N-L -	0.064	0.007	22.6			0.16
STCUM	MLSI -L -	0.074	0.007	23.7			
STPAL	SPABN-L -	0.078	0.011	14.8			

4

COMMENCEMENT BAY BPS INORGANIC CHEMICALS DATA 12/11/84
NO ANALYSES FOR: CALCIUM POTASSIUM SODIUM TIN BORON MOLYBDEN

APPENDIX G

CALCULATIONS OF
EXPOSURE TO AND RISK FROM
POLLUTANTS IN COMMENCEMENT BAY FISH AND CRABS

TABLE G-1. RISK FROM METALS IN FISH

ANTIMONY

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	457.21	6.53E-03	1.57
weekly	64.7	55.30	9.33E-04	0.22
monthly	15.1	15.24	2.18E-04	0.05
bimonthly	7.4	7.47	1.07E-04	0.03
twice/year	2.5	2.52	3.60E-05	0.01
yearly	1.2	1.21	1.73E-05	.00

ARSENIC

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1843.71	3.16E-05	4.42E-04
weekly	64.7	263.33	4.51E-06	6.32E-05
monthly	15.1	51.46	1.05E-06	1.47E-05
bimonthly	7.4	30.12	5.16E-07	7.23E-06
twice/year	2.5	10.18	1.74E-07	2.44E-06
yearly	1.2	4.88	8.37E-08	1.17E-06

CADMIUM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	12.18	1.74E-04	0.0174
weekly	64.7	1.74	2.49E-05	0.0025
monthly	15.1	0.41	5.80E-06	0.0006
bimonthly	7.4	0.20	2.84E-06	0.0003
twice/year	2.5	0.07	9.60E-07	0.0001
yearly	1.2	0.03	4.61E-07	.0000

CHROMIUM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL-III RISK
daily	453.0	89.33	1.28E-03	0.000250
weekly	64.7	12.76	1.82E-04	0.000036
monthly	15.1	2.98	4.25E-05	0.000008
bimonthly	7.4	1.46	2.08E-05	0.000004
twice/year	2.5	0.49	7.04E-06	0.000001
yearly	1.2	0.24	3.38E-06	0.000001

LEAD

FREQUENCY	INTAKE	EXPOSURE	EXPOSURE	INDIVIDUAL
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TABLE G-1. RISK FROM METALS IN FISH

	g/day	ug/day	mg/kg/day	RISK
daily	453.0	98.71	1.41E-03	0.99
weekly	64.7	14.10	2.01E-04	0.14
monthly	15.1	3.29	4.70E-05	0.03
bimonthly	7.4	1.61	2.30E-05	0.02
twice/year	2.5	0.54	7.78E-06	0.01
yearly	1.2	0.26	3.74E-06	.00

MANGANESE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	110.17	1.57E-03	0.0110
weekly	64.7	15.74	2.25E-04	0.0016
monthly	15.1	3.67	5.25E-05	0.0004
bimonthly	7.4	1.80	2.57E-05	0.0002
twice/year	2.5	0.61	8.69E-06	0.0001
yearly	1.2	0.29	4.17E-06	.0000

NICKEL

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	45.43	6.49E-04	0.0311
weekly	64.7	6.49	9.27E-05	0.0044
monthly	15.1	1.51	2.16E-05	0.0010
bimonthly	7.4	0.74	1.06E-05	0.0005
twice/year	2.5	0.25	3.58E-06	0.0002
yearly	1.2	0.12	1.72E-06	0.0001

SELENIUM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	150.88	2.16E-03	0.22
weekly	64.7	21.55	3.08E-04	0.03
monthly	15.1	5.03	7.18E-05	0.01
bimonthly	7.4	2.46	3.52E-05	.00
twice/year	2.5	0.83	1.19E-05	.00
yearly	1.2	0.40	5.71E-06	.00

SILVER

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.0	5.39	7.69E-05	0.34
weekly	64.7	0.77	1.10E-05	0.05
monthly	15.1	0.18	2.56E-06	0.01

TABLE G-1. RISK FROM METALS IN FISH

bimonthly	7.4	0.09	1.26E-06	0.01
twice/year	2.5	0.03	4.25E-07	.00
yearly	1.2	0.01	2.04E-07	.00

ZINC

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	1654.94	2.36E-02	0.110
weekly	64.7	236.37	3.38E-03	0.016
monthly	15.1	55.16	7.88E-04	0.004
bimonthly	7.4	27.03	3.86E-04	0.002
twice/year	2.5	9.13	1.30E-04	0.001
yearly	1.2	4.38	6.26E-05	.000

MERCURY

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	26.96	3.85E-04	1.35
weekly	64.7	3.85	5.50E-05	0.19
monthly	15.1	0.90	1.28E-05	0.04
bimonthly	7.4	0.44	6.29E-06	0.02
twice/year	2.5	0.15	2.13E-06	0.01
yearly	1.2	0.07	1.02E-06	.00

TABLE G-1. RISK FROM METALS IN FISH

ARSENIC BL-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.72	5.31E-05	7.44E-04
weekly	64.7	0.53	7.59E-06	1.06E-04
monthly	15.1	0.12	1.77E-06	2.48E-05
bimonthly	7.4	0.06	8.68E-07	1.21E-05
twice/year	2.5	0.02	2.93E-07	4.10E-06
yearly	1.2	0.01	1.41E-07	1.97E-06

ARSENIC BL-71

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	5.48	7.83E-05	1.10E-03
weekly	64.7	0.78	1.12E-05	1.57E-04
monthly	15.1	0.18	2.61E-06	3.65E-05
bimonthly	7.4	0.09	1.28E-06	1.79E-05
twice/year	2.5	0.03	4.32E-07	6.05E-06
yearly	1.2	0.01	2.07E-07	2.90E-06

ARSENIC BL-72

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.67	2.39E-05	3.35E-04
weekly	64.7	0.24	3.42E-06	4.78E-05
monthly	15.1	0.06	7.97E-07	1.12E-05
bimonthly	7.4	0.03	3.91E-07	5.47E-06
twice/year	2.5	0.01	1.32E-07	1.85E-06
yearly	1.2	.00	6.34E-08	8.87E-07

ARSENIC CI-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.35	1.93E-05	2.70E-04
weekly	64.7	0.19	2.75E-06	3.85E-05
monthly	15.1	0.04	6.42E-07	8.99E-06

TABLE G-1. RISK FROM METALS IN FISH

bimonthly	7.4	0.02	3.15E-07	4.40E-06
twice/year	2.5	0.01	1.06E-07	1.49E-06
yearly	1.2	.00	5.10E-08	7.14E-07

ARSENIC CI-72

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.88	2.69E-05	3.76E-04
weekly	64.7	0.27	3.84E-06	5.37E-05
monthly	15.1	0.06	8.96E-07	1.25E-05
bimonthly	7.4	0.03	4.39E-07	6.14E-06
twice/year	2.5	0.01	1.48E-07	2.08E-06
yearly	1.2	.00	7.12E-08	9.96E-07

ARSENIC CR-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.48	4.97E-05	6.96E-04
weekly	64.7	0.50	7.10E-06	9.94E-05
monthly	15.1	0.12	1.66E-06	2.32E-05
bimonthly	7.4	0.06	8.12E-07	1.14E-05
twice/year	2.5	0.02	2.74E-07	3.84E-06
yearly	1.2	0.01	1.32E-07	1.84E-06

ARSENIC CR-71

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	5.15	7.36E-05	1.03E-03
weekly	64.7	0.74	1.05E-05	1.47E-04
monthly	15.1	0.17	2.45E-06	3.44E-05
bimonthly	7.4	0.08	1.20E-06	1.68E-05
twice/year	2.5	0.03	4.06E-07	5.69E-06
yearly	1.2	0.01	1.95E-07	2.73E-06

ARSENIC HY-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.97	2.81E-05	3.94E-04

TABLE G-1. RISK FROM METALS IN FISH

weekly	64.7	0.28	4.02E-06	5.62E-05
monthly	15.1	0.07	9.37E-07	1.31E-05
bimonthly	7.4	0.03	4.59E-07	6.43E-06
twice/year	2.5	0.01	1.55E-07	2.17E-06
yearly	1.2	0.01	7.45E-08	1.04E-06

ARSENIC HY-71

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.60	2.28E-05	3.20E-04
weekly	64.7	0.23	3.25E-06	4.57E-05
monthly	15.1	0.05	7.61E-07	1.07E-05
bimonthly	7.4	0.03	3.73E-07	5.22E-06
twice/year	2.5	0.01	1.26E-07	1.76E-06
yearly	1.2	.00	6.05E-08	8.47E-07

ARSENIC HY-72

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.30	1.86E-05	2.61E-04
weekly	64.7	0.19	2.66E-06	3.73E-05
monthly	15.1	0.04	6.21E-07	8.70E-06
bimonthly	7.4	0.02	3.04E-07	4.26E-06
twice/year	2.5	0.01	1.03E-07	1.44E-06
yearly	1.2	.00	4.94E-08	6.91E-07

ARSENIC MD-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.24	1.77E-05	2.48E-04
weekly	64.7	0.18	2.53E-06	3.54E-05
monthly	15.1	0.04	5.90E-07	8.26E-06
bimonthly	7.4	0.02	2.89E-07	4.05E-06
twice/year	2.5	0.01	9.77E-08	1.37E-06
yearly	1.2	.00	4.69E-08	6.57E-07

ARSENIC MI-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
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TABLE G-1. RISK FROM METALS IN FISH

daily	453.0	1.11	1.59E-05	2.23E-04
weekly	64.7	0.16	2.27E-06	3.18E-05
monthly	15.1	0.04	5.31E-07	7.43E-06
bimonthly	7.4	0.02	2.60E-07	3.64E-06
twice/year	2.5	0.01	8.79E-08	1.23E-06
yearly	1.2	.00	4.22E-08	5.90E-07

ARSENIC RS-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.69	2.41E-05	3.37E-04
weekly	64.7	0.24	3.44E-06	4.81E-05
monthly	15.1	0.06	8.02E-07	1.12E-05
bimonthly	7.4	0.03	3.93E-07	5.51E-06
twice/year	2.5	0.01	1.33E-07	1.86E-06
yearly	1.2	.00	6.38E-08	8.93E-07

ARSENIC RS-71

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.47	7.82E-05	1.09E-03
weekly	64.7	0.78	1.12E-05	1.56E-04
monthly	15.1	0.18	2.61E-06	3.65E-05
bimonthly	7.4	0.09	1.28E-06	1.79E-05
twice/year	2.5	0.03	4.32E-07	6.04E-06
yearly	1.2	0.01	2.07E-07	2.90E-06

ARSENIC RS-72

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.04	4.35E-05	6.09E-04
weekly	64.7	0.43	6.21E-06	8.70E-05
monthly	15.1	0.10	1.45E-06	2.03E-05
bimonthly	7.4	0.05	7.10E-07	9.95E-06
twice/year	2.5	0.02	2.40E-07	3.36E-06
yearly	1.2	0.01	1.15E-07	1.61E-06

ARSENIC SI-70

TABLE G-1. RISK FROM METALS IN FISH

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	0.86	1.23E-05	1.72E-04
weekly	64.7	0.12	1.75E-06	2.45E-05
monthly	15.1	0.03	4.09E-07	5.73E-06
bimonthly	7.4	0.01	2.00E-07	2.81E-06
twice/year	2.5	.00	6.77E-08	9.48E-07
yearly	1.2	.00	3.25E-08	4.55E-07

ARSENIC SP-70

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	0.80	1.14E-05	1.60E-04
weekly	64.7	0.11	1.63E-06	2.28E-05
monthly	15.1	0.03	3.81E-07	5.33E-06
bimonthly	7.4	0.01	1.86E-07	2.61E-06
twice/year	2.5	.00	6.30E-08	8.82E-07
yearly	1.2	.00	3.02E-08	4.23E-07

FISH-WATERWAYS

ARSENIC-BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.62	5.18E-05	7.25E-04
weekly	64.7	0.52	7.39E-06	1.04E-04
monthly	15.1	0.12	1.73E-06	2.42E-05
bimonthly	7.4	0.06	8.46E-07	1.18E-05
twice/year	2.5	0.02	2.86E-07	4.00E-06
yearly	1.2	0.01	1.37E-07	1.92E-06

ARSENIC-CITY WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.61	2.31E-05	3.23E-04
weekly	64.7	0.23	3.29E-06	4.61E-05
monthly	15.1	0.05	7.69E-07	1.08E-05
bimonthly	7.4	0.03	3.77E-07	5.27E-06
twice/year	2.5	0.01	1.27E-07	1.78E-06

TABLE G-1. RISK FROM METALS IN FISH

yearly	1.2	.00	6.11E-08	8.55E-07
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ARSENIC-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	4.32	6.17E-05	8.63E-04
weekly	64.7	0.62	8.81E-06	1.23E-04
monthly	15.1	0.14	2.06E-06	2.88E-05
bimonthly	7.4	0.07	1.01E-06	1.41E-05
twice/year	2.5	0.02	3.40E-07	4.76E-06
yearly	1.2	0.01	1.63E-07	2.29E-06

ARSENIC-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.62	2.32E-05	3.25E-04
weekly	64.7	0.23	3.31E-06	4.64E-05
monthly	15.1	0.05	7.73E-07	1.08E-05
bimonthly	7.4	0.03	3.79E-07	5.30E-06
twice/year	2.5	0.01	1.28E-07	1.79E-06
yearly	1.2	.00	6.14E-08	8.60E-07

ARSENIC-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.24	1.77E-05	2.48E-04
weekly	64.7	0.18	2.53E-06	3.54E-05
monthly	15.1	0.04	5.90E-07	8.26E-06
bimonthly	7.4	0.02	2.89E-07	4.05E-06
twice/year	2.5	0.01	9.77E-08	1.37E-06
yearly	1.2	.00	4.69E-08	6.57E-07

ARSENIC-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	1.11	1.59E-05	2.23E-04
weekly	64.7	0.16	2.27E-06	3.18E-05
monthly	15.1	0.04	5.31E-07	7.43E-06

TABLE G-1. RISK FROM METALS IN FISH

bimonthly	7.4	0.02	2.60E-07	3.64E-06
twice/year	2.5	0.01	8.79E-08	1.23E-06
yearly	1.2	.00	4.22E-08	5.90E-07

ARSENIC-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.40	4.86E-05	6.80E-04
weekly	64.7	0.49	6.94E-06	9.72E-05
monthly	15.1	0.11	1.62E-06	2.27E-05
bimonthly	7.4	0.06	7.94E-07	1.11E-05
twice/year	2.5	0.02	2.68E-07	3.75E-06
yearly	1.2	0.01	1.29E-07	1.80E-06

ARSENIC-SITCLUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	0.86	1.23E-05	1.72E-04
weekly	64.7	0.12	1.75E-06	2.45E-05
monthly	15.1	0.03	4.09E-07	5.73E-06
bimonthly	7.4	0.01	2.00E-07	2.81E-06
twice/year	2.5	.00	6.77E-08	9.48E-07
yearly	1.2	.00	3.25E-08	4.55E-07

ARSENIC-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	0.799	1.14E-05	1.60E-04
weekly	64.7	0.114	1.63E-06	2.28E-05
monthly	15.1	0.027	3.81E-07	5.33E-06
bimonthly	7.4	0.013	1.86E-07	2.61E-06
twice/year	2.5	0.004	6.30E-08	8.82E-07
yearly	1.2	0.002	3.02E-08	4.23E-07

CADMIUM-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	9.42	1.35E-04	0.0135

TABLE G-1. RISK FROM METALS IN FISH

weekly	64.7	1.35	1.92E-05	0.0019
monthly	15.1	0.31	4.49E-06	0.0004
bimonthly	7.4	0.15	2.20E-06	0.0002
twice/year	2.5	0.05	7.43E-07	0.0001
yearly	1.2	0.02	3.57E-07	0.0000

CADMIUM-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	14.95	2.14E-04	0.0214
weekly	64.7	2.14	3.05E-05	0.0031
monthly	15.1	0.50	7.12E-06	0.0007
bimonthly	7.4	0.24	3.49E-06	0.0003
twice/year	2.5	0.08	1.18E-06	0.0001
yearly	1.2	0.04	5.66E-07	0.0001

CADMIUM-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	9.20	1.31E-04	0.0131
weekly	64.7	1.31	1.88E-05	0.0019
monthly	15.1	0.31	4.38E-06	0.0004
bimonthly	7.4	0.15	2.15E-06	0.0002
twice/year	2.5	0.05	7.25E-07	0.0001
yearly	1.2	0.02	3.48E-07	0.0000

CADMIUM-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	15.25	2.18E-04	0.0218
weekly	64.7	2.18	3.11E-05	0.0031
monthly	15.1	0.51	7.26E-06	0.0007
bimonthly	7.4	0.25	3.56E-06	0.0004
twice/year	2.5	0.08	1.20E-06	0.0001
yearly	1.2	0.04	5.77E-07	0.0001

CADMIUM-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
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TABLE G-1. RISK FROM METALS IN FISH

daily	453.0	24.64	3.52E-04	0.0352
weekly	64.7	3.52	5.03E-05	0.0050
monthly	15.1	0.82	1.17E-05	0.0012
bimonthly	7.4	0.40	5.75E-06	0.0006
twice/year	2.5	0.14	1.94E-06	0.0002
yearly	1.2	0.07	9.33E-07	0.0001

CADMIUM-MILWAUKEE WI

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.89	8.41E-05	0.0084
weekly	64.7	0.84	1.20E-05	0.0012
monthly	15.1	0.20	2.80E-06	0.0003
bimonthly	7.4	0.10	1.37E-06	0.0001
twice/year	2.5	0.03	4.64E-07	.0000
yearly	1.2	0.02	2.23E-07	.0000

CADMIUM-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.95	8.50E-05	0.0085
weekly	64.7	0.85	1.21E-05	0.0012
monthly	15.1	0.20	2.83E-06	0.0003
bimonthly	7.4	0.10	1.39E-06	0.0001
twice/year	2.5	0.03	4.69E-07	.0000
yearly	1.2	0.02	2.25E-07	.0000

CADMIUM-SITCLUN WI

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	15.49	2.21E-04	0.0221
weekly	64.7	2.21	3.16E-05	0.0032
monthly	15.1	0.52	7.38E-06	0.0007
bimonthly	7.4	0.25	3.62E-06	0.0004
twice/year	2.5	0.09	1.22E-06	0.0001
yearly	1.2	0.04	5.86E-07	0.0001

CADMIUM-ST. PAUL WI

TABLE G-1. RISK FROM METALS IN FISH

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	14.95	2.14E-04	0.0214
weekly	64.7	2.14	3.05E-05	0.0031
monthly	15.1	0.50	7.12E-06	0.0007
bimonthly	7.4	0.24	3.49E-06	0.0003
twice/year	2.5	0.08	1.18E-06	0.0001
yearly	1.2	0.04	3.66E-07	0.0001

CHROMIUM-BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	86.66	1.24E-03	0.50	2.427E-04
weekly	64.7	12.38	1.77E-04	0.07	3.467E-05
monthly	15.1	2.89	4.13E-05	0.02	8.091E-06
bimonthly	7.4	1.42	2.02E-05	0.01	3.965E-06
twice/year	2.5	0.48	6.83E-06	.00	1.340E-06
yearly	1.2	0.23	3.28E-06	.00	6.430E-07

CHROMIUM-CITY WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	91.96	1.31E-03	0.53	2.575E-04
weekly	64.7	13.13	1.88E-04	0.08	3.679E-05
monthly	15.1	3.07	4.38E-05	0.02	8.586E-06
bimonthly	7.4	1.50	2.15E-05	0.01	4.208E-06
twice/year	2.5	0.51	7.25E-06	.00	1.422E-06
yearly	1.2	0.24	3.48E-06	.00	6.824E-07

CHROMIUM-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	86.07	1.23E-03	0.49	2.411E-04
weekly	64.7	12.29	1.76E-04	0.07	3.443E-05
monthly	15.1	2.87	4.10E-05	0.02	8.036E-06
bimonthly	7.4	1.41	2.01E-05	0.01	3.938E-06
twice/year	2.5	0.48	6.79E-06	.00	1.331E-06
yearly	1.2	0.23	3.26E-06	.00	6.387E-07

TABLE G-1. RISK FROM METALS IN FISH

CHROMIUM-HYLEBOS WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	109.63	1.57E-03	0.63	3.071E-04
weekly	64.7	15.66	2.24E-04	0.09	4.386E-05
monthly	15.1	3.65	5.22E-05	0.02	1.024E-05
bimonthly	7.4	1.79	2.56E-05	0.01	5.016E-06
twice/year	2.5	0.61	8.64E-06	.00	1.695E-06
yearly	1.2	0.29	4.15E-06	.00	8.134E-07

CHROMIUM-MIDDLE WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	63.42	9.06E-04	0.36	1.776E-04
weekly	64.7	9.06	1.29E-04	0.05	2.537E-05
monthly	15.1	2.11	3.02E-05	0.01	5.922E-06
bimonthly	7.4	1.04	1.48E-05	0.01	2.902E-06
twice/year	2.5	0.35	5.00E-06	.00	9.804E-07
yearly	1.2	0.17	2.40E-06	.00	4.706E-07

CHROMIUM-MILWAUKEE WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	76.10	1.09E-03	0.43	2.132E-04
weekly	64.7	10.87	1.55E-04	0.06	3.045E-05
monthly	15.1	2.54	3.62E-05	0.01	7.106E-06
bimonthly	7.4	1.24	1.78E-05	0.01	3.482E-06
twice/year	2.5	0.42	6.00E-06	.00	1.176E-06
yearly	1.2	0.20	2.88E-06	.00	5.647E-07

CHROMIUM-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	89.69	1.28E-03	0.51	2.512E-04
weekly	64.7	12.81	1.83E-04	0.07	3.588E-05
monthly	15.1	2.99	4.27E-05	0.02	8.375E-06
bimonthly	7.4	1.47	2.09E-05	0.01	4.104E-06
twice/year	2.5	0.50	7.07E-06	.00	1.387E-06
yearly	1.2	0.24	3.39E-06	.00	6.655E-07

TABLE 6-1. RISK FROM METALS IN FISH

CHROMIUM-SITOUN MN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	53.23	9.32E-04	0.37	1.827E-04
weekly	64.7	9.32	1.33E-04	0.05	2.610E-05
monthly	15.1	2.17	3.11E-05	0.01	6.091E-06
bimonthly	7.4	1.07	1.52E-05	0.01	2.985E-06
twice/year	2.5	0.36	5.14E-06	.00	1.008E-06
yearly	1.2	0.17	2.47E-06	.00	4.840E-07

CHROMIUM-ST. PAUL MN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)	INDIVIDUAL—III RISK (unitless)
daily	453.0	93.32	1.33E-03	0.53	2.614E-04
weekly	64.7	13.33	1.90E-04	0.08	3.733E-05
monthly	15.1	3.11	4.44E-05	0.02	8.713E-06
bimonthly	7.4	1.52	2.18E-05	0.01	4.270E-06
twice/year	2.5	0.52	7.36E-06	.00	1.443E-06
yearly	1.2	0.25	3.53E-06	.00	6.924E-07

LEAD-BLAIR MN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	116.56	1.67E-03	1.17
weekly	64.7	16.65	2.38E-04	0.17
monthly	15.1	3.89	5.55E-05	0.04
bimonthly	7.4	1.90	2.72E-05	0.02
twice/year	2.5	0.64	9.19E-06	0.01
yearly	1.2	0.31	4.41E-06	.00

LEAD-CITY MN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	159.46	2.28E-03	1.59
weekly	64.7	22.77	3.25E-04	0.23

TABLE G-1. RISK FROM METALS IN FISH

monthly	15.1	5.32	7.59E-05	0.05
bimonthly	7.4	2.60	3.72E-05	0.03
twice/year	2.5	0.88	1.26E-05	0.01
yearly	1.2	0.42	6.03E-06	.00

LEAD-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	98.75	1.41E-03	0.99
weekly	64.7	14.10	2.01E-04	0.14
monthly	15.1	3.29	4.70E-05	0.03
bimonthly	7.4	1.61	2.30E-05	0.02
twice/year	2.5	0.55	7.79E-06	0.01
yearly	1.2	0.26	3.74E-06	.00

LEAD-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	112.93	1.61E-03	1.13
weekly	64.7	16.13	2.30E-04	0.16
monthly	15.1	3.76	5.38E-05	0.04
bimonthly	7.4	1.84	2.64E-05	0.02
twice/year	2.5	0.62	8.90E-06	0.01
yearly	1.2	0.30	4.27E-06	.00

LEAD-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	68.86	9.84E-04	0.69
weekly	64.7	9.83	1.40E-04	0.10
monthly	15.1	2.30	3.28E-05	0.02
bimonthly	7.4	1.12	1.61E-05	0.01
twice/year	2.5	0.38	5.43E-06	.00
yearly	1.2	0.18	2.61E-06	.00

LEAD-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
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TABLE 6-1. RISK FROM METALS IN FISH

daily	453.0	63.42	9.06E-04	0.63
weekly	64.7	9.06	1.29E-04	0.09
monthly	15.1	2.11	3.02E-05	0.02
bimonthly	7.4	1.04	1.48E-05	0.01
twice/year	2.5	0.35	5.00E-06	.00
yearly	1.2	0.17	2.40E-06	.00

LEAD-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	71.26	1.02E-03	0.71
weekly	64.7	10.18	1.45E-04	0.10
monthly	15.1	2.38	3.39E-05	0.02
bimonthly	7.4	1.16	1.66E-05	0.01
twice/year	2.5	0.39	5.62E-06	.00
yearly	1.2	0.19	2.70E-06	.00

LEAD-SITCUM WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	63.42	9.06E-04	0.63
weekly	64.7	9.06	1.29E-04	0.09
monthly	15.1	2.11	3.02E-05	0.02
bimonthly	7.4	1.04	1.48E-05	0.01
twice/year	2.5	0.35	5.00E-06	.00
yearly	1.2	0.17	2.40E-06	.00

LEAD-ST. PAUL WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	63.42	9.06E-04	0.63
weekly	64.7	9.06	1.29E-04	0.09
monthly	15.1	2.11	3.02E-05	0.02
bimonthly	7.4	1.04	1.48E-05	0.01
twice/year	2.5	0.35	5.00E-06	.00
yearly	1.2	0.17	2.40E-06	.00

SELENIUM-BLAIR WA

TABLE G-1. RISK FROM METALS IN FISH

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	380.82	5.44E-03	0.54
weekly	64.7	54.39	7.77E-04	0.08
monthly	15.1	12.69	1.81E-04	0.02
bimonthly	7.4	6.22	8.89E-05	0.01
twice/year	2.5	2.10	3.00E-05	.00
yearly	1.2	1.01	1.44E-05	.00

SELENIUM-CITY WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	96.94	1.38E-03	0.14
weekly	64.7	13.85	1.98E-04	0.02
monthly	15.1	3.23	4.62E-05	.00
bimonthly	7.4	1.58	2.26E-05	.00
twice/year	2.5	0.54	7.64E-06	.00
yearly	1.2	0.26	3.67E-06	.00

SELENIUM-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	77.46	1.11E-03	0.11
weekly	64.7	11.06	1.58E-04	0.02
monthly	15.1	2.58	3.69E-05	.00
bimonthly	7.4	1.27	1.81E-05	.00
twice/year	2.5	0.43	6.11E-06	.00
yearly	1.2	0.21	2.93E-06	.00

SELENIUM-HYLEBOS WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	112.65	1.61E-03	0.16
weekly	64.7	16.09	2.30E-04	0.02
monthly	15.1	3.75	5.36E-05	0.01
bimonthly	7.4	1.84	2.63E-05	.00
twice/year	2.5	0.62	8.88E-06	.00
yearly	1.2	0.30	4.26E-06	.00

TABLE G-1. RISK FROM METALS IN FISH

SELENIUM-MIDDLE WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	82.45	1.18E-03	0.12
weekly	64.7	11.78	1.68E-04	0.02
monthly	15.1	2.75	3.93E-05	.00
bimonthly	7.4	1.35	1.92E-05	.00
twice/year	2.5	0.46	6.50E-06	.00
yearly	1.2	0.22	3.12E-06	.00

SELENIUM-MILWAUKEE WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	57.08	8.15E-04	0.08
weekly	64.7	8.15	1.16E-04	0.01
monthly	15.1	1.90	2.72E-05	.00
bimonthly	7.4	0.93	1.33E-05	.00
twice/year	2.5	0.32	4.50E-06	.00
yearly	1.2	0.15	2.16E-06	.00

SELENIUM-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	101.47	1.45E-03	0.14
weekly	64.7	14.49	2.07E-04	0.02
monthly	15.1	3.38	4.83E-05	.00
bimonthly	7.4	1.66	2.37E-05	.00
twice/year	2.5	0.56	8.00E-06	.00
yearly	1.2	0.27	3.84E-06	.00

SELENIUM-SITCLUM WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	86.98	1.24E-03	0.12
weekly	64.7	12.42	1.77E-04	0.02
monthly	15.1	2.90	4.14E-05	.00
bimonthly	7.4	1.42	2.03E-05	.00
twice/year	2.5	0.48	6.86E-06	.00

TABLE G-1. RISK FROM METALS IN FISH

yearly	1.2	0.23	3.29E-06	.00
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SELENIUM-ST. PAUL MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	57.98	8.28E-04	0.08
weekly	64.7	8.28	1.18E-04	0.01
monthly	15.1	1.93	2.76E-05	.00
bimonthly	7.4	0.95	1.35E-05	.00
twice/year	2.5	0.32	4.57E-06	.00
yearly	1.2	0.15	2.19E-06	.00

TABLE G-1 RISKS FROM METALS IN FISH

SILVER-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	6.35	9.07E-05	0.40
weekly	64.7	0.94	1.35E-05	0.06
monthly	15.1	0.22	3.15E-06	0.01
bimonthly	7.4	0.11	1.54E-06	0.01
twice/year	2.5	0.04	5.21E-07	.00
yearly	1.2	0.02	2.50E-07	.00

SILVER-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	4.13	5.90E-05	0.26
weekly	64.7	0.61	8.78E-06	0.04
monthly	15.1	0.14	2.05E-06	0.01
bimonthly	7.4	0.07	1.00E-06	.00
twice/year	2.5	0.02	3.39E-07	.00
yearly	1.2	0.01	1.63E-07	.00

SILVER-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	3.57	5.10E-05	0.22
weekly	64.7	0.53	7.58E-06	0.03
monthly	15.1	0.12	1.77E-06	0.01
bimonthly	7.4	0.06	8.67E-07	.00
twice/year	2.5	0.02	2.93E-07	.00
yearly	1.2	0.01	1.41E-07	.00

SILVER-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	13.89	1.98E-04	0.87
weekly	64.7	2.07	2.95E-05	0.13
monthly	15.1	0.48	6.89E-06	0.03
bimonthly	7.4	0.24	3.38E-06	0.01
twice/year	2.5	0.08	1.14E-06	.00
yearly	1.2	0.04	5.47E-07	.00

SILVER-MIDDLE WW

FREQUENCY	INTAKE	EXPOSURE	EXPOSURE	INDIVIDUAL—A
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TABLE G-1 RISKS FROM METALS IN FISH

	g/day	ug/day	mg/kg/day	RISK (unitless)
daily	435.0	1.13	1.62E-05	0.07
weekly	64.7	0.17	2.40E-06	0.01
monthly	15.1	0.04	5.61E-07	.00
bimonthly	7.4	0.02	2.75E-07	.00
twice/year	2.5	0.01	9.29E-08	.00
yearly	1.2	0.00	4.46E-08	0.00

SILVER-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	0.96	1.37E-05	0.06
weekly	64.7	0.14	2.03E-06	0.01
monthly	15.1	0.03	4.75E-07	.00
bimonthly	7.4	0.02	2.33E-07	.00
twice/year	2.5	0.01	7.86E-08	.00
yearly	1.2	.00	3.77E-08	.00

SILVER-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	0.99	1.41E-05	0.06
weekly	64.7	0.15	2.10E-06	0.01
monthly	15.1	0.03	4.90E-07	.00
bimonthly	7.4	0.02	2.40E-07	.00
twice/year	2.5	0.01	8.11E-08	.00
yearly	1.2	.00	3.89E-08	.00

SILVER-SITCLUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	0.96	1.37E-05	0.06
weekly	64.7	0.14	2.03E-06	0.01
monthly	15.1	0.03	4.75E-07	.00
bimonthly	7.4	0.02	2.33E-07	.00
twice/year	2.5	0.01	7.86E-08	.00
yearly	1.2	.00	3.77E-08	.00

SILVER-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	435.0	2.61	3.73E-05	0.16
weekly	64.7	0.39	5.55E-06	0.02

TABLE G-1 RISKS FROM METALS IN FISH

monthly	15.1	0.09	1.29E-06	0.01
bimonthly	7.4	0.04	6.34E-07	.00
twice/year	2.5	0.02	2.14E-07	.00
yearly	1.2	0.01	1.03E-07	.00

MERCURY-BLAIR WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	22.39	3.20E-04	1.12
weekly	64.7	3.33	4.76E-05	0.17
monthly	15.1	0.78	1.11E-05	0.04
bimonthly	7.4	0.38	5.44E-06	0.02
twice/year	2.5	0.13	1.84E-06	0.01
yearly	1.2	0.06	8.82E-07	.00

MERCURY-CITY WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	19.75	2.82E-04	0.99
weekly	64.7	2.94	4.20E-05	0.15
monthly	15.1	0.69	9.79E-06	0.03
bimonthly	7.4	0.34	4.80E-06	0.02
twice/year	2.5	0.11	1.62E-06	0.01
yearly	1.2	0.05	7.78E-07	.00

MERCURY-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	24.10	3.44E-04	1.20
weekly	64.7	3.58	5.12E-05	0.18
monthly	15.1	0.84	1.20E-05	0.04
bimonthly	7.4	0.41	5.86E-06	0.02
twice/year	2.5	0.14	1.98E-06	0.01
yearly	1.2	0.07	9.50E-07	.00

MERCURY-HYBLEBOS WA

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	35.18	5.03E-04	1.76
weekly	64.7	5.23	7.47E-05	0.26
monthly	15.1	1.22	1.74E-05	0.06
bimonthly	7.4	0.60	8.55E-06	0.03

TABLE G-1 RISKS FROM METALS IN FISH

twice/year	2.5	0.20	2.89E-06	0.01
yearly	1.2	0.10	1.39E-06	.00

MERCURY-MIDDLE MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	31.49	4.50E-04	1.57
weekly	64.7	4.68	6.69E-05	0.23
monthly	15.1	1.09	1.56E-05	0.05
bimonthly	7.4	0.54	7.65E-06	0.03
twice/year	2.5	0.18	2.59E-06	0.01
yearly	1.2	0.09	1.24E-06	.00

MERCURY-MILWAUKEE MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	37.76	5.39E-04	1.89
weekly	64.7	5.62	8.02E-05	0.28
monthly	15.1	1.31	1.87E-05	0.07
bimonthly	7.4	0.64	9.18E-06	0.03
twice/year	2.5	0.22	3.10E-06	0.01
yearly	1.2	0.10	1.49E-06	0.01

MERCURY-RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	23.20	3.31E-04	1.16
weekly	64.7	3.45	4.93E-05	0.17
monthly	15.1	0.81	1.15E-05	0.04
bimonthly	7.4	0.39	5.64E-06	0.02
twice/year	2.5	0.13	1.90E-06	0.01
yearly	1.2	0.06	9.14E-07	.00

MERCURY-SITUM MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	19.05	2.72E-04	0.95
weekly	64.7	2.83	4.05E-05	0.14
monthly	15.1	0.66	9.45E-06	0.03
bimonthly	7.4	0.32	4.63E-06	0.02
twice/year	2.5	0.11	1.56E-06	0.01
yearly	1.2	0.05	7.51E-07	.00

TABLE G-1 RISKS FROM METALS IN FISH

MERCURY-ST. PAUL IW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	18.27	2.61E-04	0.91
weekly	64.7	2.72	3.88E-05	0.14
monthly	15.1	0.63	9.06E-06	0.03
bimonthly	7.4	0.31	4.44E-06	0.02
twice/year	2.5	0.11	1.50E-06	0.01
yearly	1.2	0.05	7.20E-07	.00

Table G-2. Risk From Organics in Fish

FISH SUMMARIES

PENTACHLOROPHENOL

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	33.07	4.72E-04	0.02
weekly	64.7	4.72	6.75E-05	.00
monthly	15.1	1.10	1.57E-05	.00
bimonthly	7.4	0.54	7.72E-06	.00
twice/year	2.5	0.18	2.61E-06	.00
yearly	1.2	0.09	1.25E-06	.00

HEXACHLOROBENZENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	4.98	7.12E-05	1.20E-04
weekly	64.7	0.71	1.02E-05	1.71E-05
monthly	15.1	0.17	2.37E-06	3.99E-06
bimonthly	7.4	0.08	1.16E-06	1.93E-06
twice/year	2.5	0.03	3.93E-07	6.60E-07
yearly	1.2	0.01	1.89E-07	3.17E-07

BIS(2-ETHYL-HEXYL)-PHTHALATE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	87.88	1.26E-03	1.77E-05
weekly	64.7	12.55	1.79E-04	2.53E-06
monthly	15.1	2.93	4.18E-05	5.90E-07
bimonthly	7.4	1.44	2.05E-05	2.89E-07
twice/year	2.5	0.49	6.93E-06	9.77E-08
yearly	1.2	0.23	3.33E-06	4.69E-08

BUTYL BENZYL PHTHALATE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	5.89	8.41E-05
weekly	64.7	0.84	1.20E-05
monthly	15.1	0.20	2.80E-06
bimonthly	7.4	0.10	1.37E-06
twice/year	2.5	0.03	4.64E-07
yearly	1.2	0.02	2.23E-07

DI-N-BUTYL PHTHALATE

Table 6-2. Risk From Organics in Fish

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	192.53	2.75E-03	0.11
weekly	64.7	27.50	3.93E-04	0.02
monthly	15.1	6.42	9.17E-05	.00
bimonthly	7.4	3.15	4.49E-05	.00
twice/year	2.5	1.06	1.52E-05	.00
yearly	1.2	0.51	7.29E-06	.00

DI-N-OCTYL PHTHALATE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	22.20	3.17E-04	0.012
weekly	64.7	3.17	4.53E-05	0.002
monthly	15.1	0.74	1.06E-05	.000
bimonthly	7.4	0.36	5.18E-06	.000
twice/year	2.5	0.12	1.75E-06	.000
yearly	1.2	0.06	8.40E-07	.000

DIETHYL PHTHALATE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	4.98	7.12E-05	0.000006
weekly	64.7	0.71	1.02E-05	0.000001
monthly	15.1	0.17	2.37E-06	.000000
bimonthly	7.4	0.08	1.16E-06	.000000
twice/year	2.5	0.03	3.93E-07	.000000
yearly	1.2	0.01	1.89E-07	.000000

DIMETHYL PHTHALATE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	5.44	7.77E-05	0.003020
weekly	64.7	0.78	1.11E-05	0.000431
monthly	15.1	0.18	2.59E-06	0.000101
bimonthly	7.4	0.09	1.27E-06	0.000049
twice/year	2.5	0.03	4.29E-07	0.000017
yearly	1.2	0.01	2.06E-07	0.000008

1,3-DICHLOROBENZENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
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Table G-2. Risk From Organics in Fish

daily	453.0	14.95	2.14E-04	0.00011
weekly	64.7	2.14	3.05E-05	0.00002
monthly	15.1	0.50	7.12E-06	.00000
bimonthly	7.4	0.24	3.49E-06	.00000
twice/year	2.5	0.08	1.18E-06	.00000
yearly	1.2	0.04	5.66E-07	.00000

HEXACHLOROBUTADIENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	18.12	2.95E-04	2.01E-05
weekly	64.7	2.59	3.70E-05	2.87E-06
monthly	15.1	0.60	8.63E-06	6.69E-07
bimonthly	7.4	0.30	4.23E-06	3.28E-07
twice/year	2.5	0.10	1.43E-06	1.11E-07
yearly	1.2	0.05	6.86E-07	5.31E-08

NAPHTHALENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	60.70	8.67E-04	0.00337
weekly	64.7	8.67	1.24E-04	0.00048
monthly	15.1	2.02	2.89E-05	0.00011
bimonthly	7.4	0.99	1.42E-05	0.00006
twice/year	2.5	0.34	4.79E-06	0.00002
yearly	1.2	0.16	2.30E-06	0.00001

TOTAL PCB'S

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	95.13	1.36E-03	5.90E-03
weekly	64.7	13.59	1.94E-04	8.42E-04
monthly	15.1	3.17	4.53E-05	1.97E-04
bimonthly	7.4	1.55	2.22E-05	9.63E-05
twice/year	2.5	0.53	7.50E-06	3.26E-05
yearly	1.2	0.25	3.60E-06	1.56E-05

FLUOROTRICHLOROMETHANE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	4.98	7.12E-05	0.00002
weekly	64.7	0.71	1.02E-05	.00000
monthly	15.1	0.17	2.37E-06	.00000

Table G-2. Risk From Organics in Fish

bimonthly	7.4	0.08	1.16E-06	.00000
twice/year	2.5	0.03	3.93E-07	.00000
yearly	1.2	0.01	1.89E-07	.00000

TETRACHLOROETHYLENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	29.90	4.27E-04	1.49E-05
weekly	64.7	4.27	6.10E-05	2.14E-06
monthly	15.1	1.00	1.42E-05	4.98E-07
bimonthly	7.4	0.49	6.98E-06	2.44E-07
twice/year	2.5	0.17	2.36E-06	8.25E-08
yearly	1.2	0.08	1.13E-06	3.96E-08

ETHYLBENZENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	6.80	9.71E-05	0.0042
weekly	64.7	0.97	1.39E-05	0.0006
monthly	15.1	0.23	3.24E-06	0.0001
bimonthly	7.4	0.11	1.59E-06	0.0001
twice/year	2.5	0.04	5.36E-07	.0000
yearly	1.2	0.02	2.57E-07	.0000

TOLUENE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	4.98	7.12E-05	0.000037
weekly	64.7	0.71	1.02E-05	0.000005
monthly	15.1	0.17	2.37E-06	0.000001
bimonthly	7.4	0.08	1.16E-06	0.000001
twice/year	2.5	0.03	3.93E-07	.000000
yearly	1.2	0.01	1.89E-07	.000000

TOTAL XYLENES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	24.92	3.56E-04	0.00016
weekly	64.7	3.56	5.08E-05	0.00002
monthly	15.1	0.83	1.19E-05	0.00001
bimonthly	7.4	0.41	5.81E-06	.00000
twice/year	2.5	0.14	1.96E-06	.00000
yearly	1.2	0.07	9.43E-07	.00000

Table G-2. Risk From Organics in Fish

DDE				
FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	2.87	4.10E-05	0.00819
weekly	64.7	0.41	5.85E-06	0.00117
monthly	15.1	0.10	1.37E-06	0.00027
bimonthly	7.4	0.05	6.69E-07	0.00013
twice/year	2.5	0.02	2.26E-07	0.00005
yearly	1.2	0.01	1.09E-07	0.00002

WATERWAYS

PENTACHLOROPHENOL - BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	38.05	5.44E-04	0.0181
weekly	64.7	5.43	7.76E-05	0.0026
monthly	15.1	1.27	1.81E-05	0.0006
bimonthly	7.4	0.62	8.88E-06	0.0003
twice/year	2.5	0.21	3.00E-06	0.0001
yearly	1.2	0.10	1.44E-06	.0000

1,3-DICHLOROBENZENE - CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	42.58	6.08E-04	0.00030
weekly	64.7	6.08	8.69E-05	0.00004
monthly	15.1	1.42	2.03E-05	0.00001
bimonthly	7.4	0.70	9.94E-06	.00000
twice/year	2.5	0.24	3.36E-06	.00000
yearly	1.2	0.11	1.61E-06	.00000

HEXACHLOROBENZENE - HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	6.80	9.71E-05	1.62E-04
weekly	64.7	0.97	1.39E-05	2.32E-05
monthly	15.1	0.23	3.24E-06	5.40E-06
bimonthly	7.4	0.11	1.59E-06	2.65E-06
twice/year	2.5	0.04	5.36E-07	8.95E-07
yearly	1.2	0.02	2.57E-07	4.29E-07

HEXACHLOROBUTADIENE - HYLEBOS WW

FREQUENCY	INTAKE	EXPOSURE	EXPOSURE	INDIVIDUAL
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Table 6-2. Risk From Organics in Fish

	g/day	ug/day	mg/kg/day	RISK
daily	453.0	18.57	2.65E-04	2.06E-05
weekly	64.7	2.65	3.79E-05	2.94E-06
monthly	15.1	0.62	8.84E-06	6.85E-07
bimonthly	7.4	0.30	4.33E-06	3.36E-07
twice/year	2.5	0.10	1.46E-06	1.13E-07
yearly	1.2	0.05	7.03E-07	5.45E-08

BIS(2-ETHYL-HEXYL) PHTHALATE - BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	191.62	2.74E-03	3.86E-05
weekly	64.7	27.37	3.91E-04	5.51E-06
monthly	15.1	6.39	9.12E-05	1.29E-06
bimonthly	7.4	3.13	4.47E-05	6.31E-07
twice/year	2.5	1.06	1.51E-05	2.13E-07
yearly	1.2	0.51	7.25E-06	1.02E-07

DI-N-BUTYL PHTHALATE - BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	177.12	2.53E-03	0.0984
weekly	64.7	25.30	3.61E-04	0.0141
monthly	15.1	5.90	8.43E-05	0.0033
bimonthly	7.4	2.89	4.13E-05	0.0016
twice/year	2.5	0.98	1.40E-05	0.0005
yearly	1.2	0.47	6.70E-06	0.0003

DI-N-OCTYL PHTHALATE - BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	13.14	1.88E-04	0.0073
weekly	64.7	1.88	2.68E-05	0.0010
monthly	15.1	0.44	6.26E-06	0.0002
bimonthly	7.4	0.21	3.07E-06	0.0001
twice/year	2.5	0.07	1.04E-06	0.0000
yearly	1.2	0.03	4.97E-07	0.0000

DIMETHYL PHTHALATE - BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
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Table 6-2. Risk From Organics in Fish

daily	453.0	9.51	1.36E-04	0.0053
weekly	64.7	1.36	1.94E-05	0.0008
monthly	15.1	0.32	4.53E-06	0.0002
bimonthly	7.4	0.16	2.22E-06	0.0001
twice/year	2.5	0.05	7.50E-07	.0000
yearly	1.2	0.03	3.60E-07	.0000

BIS(2-ETHYL-HEXYL) PHTHALATE - HYLEBOS WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	15.86	2.27E-04	3.19E-06
weekly	64.7	2.26	3.24E-05	4.56E-07
monthly	15.1	0.53	7.53E-06	1.06E-07
bimonthly	7.4	0.26	3.70E-06	5.22E-08
twice/year	2.5	0.09	1.23E-06	1.76E-08
yearly	1.2	0.04	6.00E-07	8.46E-09

DI-N-BUTYL PHTHALATE - HYLEBOS WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	713.48	1.02E-02	0.3964
weekly	64.7	101.90	1.46E-03	0.0566
monthly	15.1	23.78	3.40E-04	0.0132
bimonthly	7.4	11.66	1.67E-04	0.0063
twice/year	2.5	3.94	5.63E-05	0.0022
yearly	1.2	1.89	2.70E-05	0.0011

DI-N-OCTYL PHTHALATE - HYLEBOS WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	9.97	1.42E-04	0.0053
weekly	64.7	1.42	2.03E-05	0.0008
monthly	15.1	0.33	4.75E-06	0.0002
bimonthly	7.4	0.16	2.33E-06	0.0001
twice/year	2.5	0.06	7.86E-07	.0000
yearly	1.2	0.03	3.77E-07	.0000

DIETHYL PHTHALATE - HYLEBOS WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	5.44	7.77E-05	0.000006
weekly	64.7	0.78	1.11E-05	0.000001
monthly	15.1	0.18	2.59E-06	.000000

Table 6-2. Risk From Organics in Fish

bimonthly	7.4	0.09	1.27E-06	.000000
twice/year	2.5	0.03	4.29E-07	.000000
yearly	1.2	0.01	2.06E-07	.000000

BIS(2-ETHYL-HEXYL) PHTHALATE - RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	115.52	1.65E-03	2.33E-05
weekly	64.7	16.50	2.36E-04	3.32E-06
monthly	15.1	3.85	5.50E-05	7.76E-07
bimonthly	7.4	1.89	2.70E-05	3.80E-07
twice/year	2.5	0.64	9.11E-06	1.28E-07
yearly	1.2	0.31	4.37E-06	6.16E-08

BIS(2-ETHYL-HEXYL) PHTHALATE - MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	82.45	1.18E-03	1.66E-05
weekly	64.7	11.78	1.68E-04	2.37E-06
monthly	15.1	2.75	3.93E-05	5.54E-07
bimonthly	7.4	1.35	1.92E-05	2.71E-07
twice/year	2.5	0.46	6.50E-06	9.17E-08
yearly	1.2	0.22	3.12E-06	4.40E-08

DI-N-BUTYL PHTHALATE - RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	53.00	7.57E-04	0.0294
weekly	64.7	7.57	1.08E-04	0.0042
monthly	15.1	1.77	2.52E-05	0.0010
bimonthly	7.4	0.87	1.24E-05	0.0005
twice/year	2.5	0.29	4.18E-06	0.0002
yearly	1.2	0.14	2.01E-06	0.0001

DI-N-OCTYL PHTHALATE - SITCUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	8.61	1.23E-04	0.004782
weekly	64.7	1.23	1.76E-05	0.000683
monthly	15.1	0.29	4.10E-06	0.000159
bimonthly	7.4	0.14	2.01E-06	0.000078
twice/year	2.5	0.05	6.79E-07	0.000026

Table G-2. Risk From Organics in Fish

yearly 1.2 0.02 3.26E-07 0.000013

DI-N-OCTYL PHTHALATE - MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	6.80	9.71E-05	0.003773
weekly	64.7	0.97	1.39E-05	0.000539
monthly	15.1	0.23	3.24E-06	0.000126
bimonthly	7.4	0.11	1.59E-06	0.000062
twice/year	2.5	0.04	5.36E-07	0.000021
yearly	1.2	0.02	2.57E-07	0.000010

DI-N-BUTYL PHTHALATE-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	31.71	4.53E-04	0.017617
weekly	64.7	4.53	6.47E-05	0.002516
monthly	15.1	1.06	1.51E-05	0.000587
bimonthly	7.4	0.52	7.40E-06	0.000288
twice/year	2.5	0.18	2.50E-06	0.000097
yearly	1.2	0.08	1.20E-06	0.000047

DIETHYL PHTHALATE-SITCUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	6.34	9.06E-05	0.000007
weekly	64.7	0.91	1.29E-05	0.000001
monthly	15.1	0.21	3.02E-06	.000000
bimonthly	7.4	0.10	1.48E-06	.000000
twice/year	2.5	0.04	5.00E-07	.000000
yearly	1.2	0.02	2.40E-07	.000000

BUTYL BENZYL PHTHALATE-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	4.98	7.12E-05
weekly	64.7	0.71	1.02E-05
monthly	15.1	0.17	2.37E-06
bimonthly	7.4	0.08	1.16E-06
twice/year	2.5	0.03	3.93E-07
yearly	1.2	0.01	1.89E-07

BUTYL BENZYL PHTHALATE-CITY WW

Table G-2. Risk From Organics in Fish

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	14.95	2.14E-04
weekly	64.7	2.14	3.05E-05
monthly	15.1	0.50	7.12E-06
bimonthly	7.4	0.24	3.49E-06
twice/year	2.5	0.08	1.18E-06
yearly	1.2	0.04	5.66E-07

DI-N-OCTYL PHTHALATE - RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	17.67	2.52E-04	0.009815
weekly	64.7	2.52	3.60E-05	0.001402
monthly	15.1	0.59	8.41E-06	0.000327
bimonthly	7.4	0.29	4.12E-06	0.000160
twice/year	2.5	0.10	1.39E-06	0.000054
yearly	1.2	0.05	6.59E-07	0.000026

BIS(2-ETHYL-HEXYL)-PHTHALATE-CITY MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	125.03	1.79E-03	2.52E-05
weekly	64.7	17.86	2.55E-04	3.60E-06
monthly	15.1	4.17	5.95E-05	8.39E-07
bimonthly	7.4	2.04	2.92E-05	4.11E-07
twice/year	2.5	0.69	9.86E-06	1.39E-07
yearly	1.2	0.33	4.73E-06	6.67E-08

DI-N-OCTYL PHTHALATE-CITY MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	94.22	1.35E-03	0.0523
weekly	64.7	13.46	1.92E-04	0.0075
monthly	15.1	3.14	4.49E-05	0.0017
bimonthly	7.4	1.54	2.20E-05	0.0009
twice/year	2.5	0.52	7.43E-06	0.0003
yearly	1.2	0.25	3.57E-06	0.0001

NAPHTHALENE-BLAIR MM

Table 6-2. Risk From Organics in Fish

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	9.97	1.42E-04	0.0006
weekly	64.7	1.42	2.03E-05	0.0001
monthly	15.1	0.33	4.75E-06	.0000
bimonthly	7.4	0.16	2.33E-06	.0000
twice/year	2.5	0.06	7.86E-07	.0000
yearly	1.2	0.03	3.77E-07	.0000

NAPHTHALENE - CITY WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	100.57	1.44E-03	0.0056
weekly	64.7	14.36	2.05E-04	0.0008
monthly	15.1	3.35	4.79E-05	0.0002
bimonthly	7.4	1.64	2.35E-05	0.0001
twice/year	2.5	0.56	7.93E-06	.0000
yearly	1.2	0.27	3.81E-06	.0000

NAPHTHALENE - HYLEBOS WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	16.31	2.33E-04	0.0009
weekly	64.7	2.33	3.33E-05	0.0001
monthly	15.1	0.54	7.77E-06	.0000
bimonthly	7.4	0.27	3.81E-06	.0000
twice/year	2.5	0.09	1.29E-06	.0000
yearly	1.2	0.04	6.17E-07	.0000

NAPHTHALENE - MILWAUKEE WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	598.87	8.55E-03	0.0333
weekly	64.7	85.53	1.22E-03	0.0048
monthly	15.1	19.96	2.85E-04	0.0011
bimonthly	7.4	9.78	1.40E-04	0.0005
twice/year	2.5	3.31	4.72E-05	0.0002
yearly	1.2	1.59	2.27E-05	0.0001

TOTAL PCB'S - BLAIR WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	114.61	1.64E-03	7.11E-03

Table G-2. Risk From Organics in Fish

weekly	64.7	16.37	2.34E-04	1.01E-03
monthly	15.1	3.82	5.46E-05	2.37E-04
bimonthly	7.4	1.87	2.67E-05	1.16E-04
twice/year	2.5	0.63	9.04E-06	3.92E-05
yearly	1.2	0.30	4.34E-06	1.88E-05

TOTAL PCB'S - CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	160.36	2.29E-03	9.94E-03
weekly	64.7	22.90	3.27E-04	1.42E-03
monthly	15.1	5.35	7.64E-05	3.31E-04
bimonthly	7.4	2.62	3.74E-05	1.62E-04
twice/year	2.5	0.89	1.26E-05	5.49E-05
yearly	1.2	0.42	6.07E-06	2.63E-05

TOTAL PCB'S -HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	150.40	2.15E-03	9.32E-03
weekly	64.7	21.48	3.07E-04	1.33E-03
monthly	15.1	3.01	7.16E-05	3.11E-04
bimonthly	7.4	2.46	3.51E-05	1.52E-04
twice/year	2.5	0.83	1.19E-05	5.15E-05
yearly	1.2	0.40	5.69E-06	2.47E-05

TOTAL PCB'S -MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	77.01	1.10E-03	4.77E-03
weekly	64.7	11.00	1.57E-04	6.82E-04
monthly	15.1	2.57	3.67E-05	1.59E-04
bimonthly	7.4	1.25	1.80E-05	7.80E-05
twice/year	2.5	0.43	6.07E-06	2.64E-05
yearly	1.2	0.20	2.91E-06	1.26E-05

TOTAL PCB'S -MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	45.30	6.47E-04	2.81E-03

Table G-2. Risk From Organics in Fish

weekly	64.7	6.47	9.24E-05	4.01E-04
monthly	15.1	1.51	2.16E-05	9.36E-05
bimonthly	7.4	0.74	1.06E-05	4.59E-05
twice/year	2.5	0.25	3.57E-06	1.55E-05
yearly	1.2	0.12	1.71E-06	7.44E-06

TOTAL PCB'S -RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	30.80	4.40E-04	1.91E-03
weekly	64.7	4.40	6.29E-05	2.73E-04
monthly	15.1	1.03	1.47E-05	6.37E-05
bimonthly	7.4	0.50	7.19E-06	3.12E-05
twice/year	2.5	0.17	2.43E-06	1.05E-05
yearly	1.2	0.08	1.17E-06	5.06E-06

TOTAL PCB'S -SITCLUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	77.92	1.11E-03	4.83E-03
weekly	64.7	11.13	1.59E-04	6.90E-04
monthly	15.1	2.60	3.71E-05	1.61E-04
bimonthly	7.4	1.27	1.82E-05	7.89E-05
twice/year	2.5	0.43	6.14E-06	2.67E-05
yearly	1.2	0.21	2.95E-06	1.28E-05

TOTAL PCB'S -ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	18.12	2.59E-04	1.12E-03
weekly	64.7	2.59	3.70E-05	1.60E-04
monthly	15.1	0.60	8.63E-06	3.74E-05
bimonthly	7.4	0.30	4.23E-06	1.84E-05
twice/year	2.5	0.10	1.43E-06	6.20E-06
yearly	1.2	0.05	6.86E-07	2.98E-06

FLUOROTRICHLOROMETHANE-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	12.68	1.81E-04	0.000063
weekly	64.7	1.81	2.59E-05	0.000009
monthly	15.1	0.42	6.04E-06	0.000002
bimonthly	7.4	0.21	2.96E-06	0.000001

Table G-2. Risk From Organics in Fish

twice/year	2.5	0.07	1.00E-06	.000000
yearly	1.2	0.03	4.80E-07	.000000

FLUOROTRICHLOROMETHANE-ST. PAUL MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	2.72	3.88E-05	0.000014
weekly	64.7	0.39	5.55E-06	0.000002
monthly	15.1	0.09	1.29E-06	.000000
bimonthly	7.4	0.04	6.34E-07	.000000
twice/year	2.5	0.02	2.14E-07	.000000
yearly	1.2	0.01	1.03E-07	.000000

1,3-DICHLOROBENZENE-SITCLIM MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	29.90	4.27E-04	0.000214
weekly	64.7	4.27	6.10E-05	0.000031
monthly	15.1	1.00	1.42E-05	0.000007
bimonthly	7.4	0.49	6.98E-06	0.000003
twice/year	2.5	0.17	2.36E-06	0.000001
yearly	1.2	0.08	1.13E-06	0.000001

TETRACHLOROETHYLENE-CITY MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	16.31	2.33E-04	8.15E-06
weekly	64.7	2.33	3.33E-05	1.16E-06
monthly	15.1	0.54	7.77E-06	2.72E-07
bimonthly	7.4	0.27	3.81E-06	1.33E-07
twice/year	2.5	0.09	1.29E-06	4.50E-08
yearly	1.2	0.04	6.17E-07	2.16E-08

TETRACHLOROETHYLENE-HYLEBOS MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	36.24	5.18E-04	1.81E-05
weekly	64.7	5.18	7.39E-05	2.59E-06
monthly	15.1	1.21	1.73E-05	6.04E-07
bimonthly	7.4	0.59	8.46E-06	2.96E-07
twice/year	2.5	0.20	2.86E-06	1.00E-07
yearly	1.2	0.10	1.37E-06	4.80E-08

Table G-2. Risk From Organics in Fish

TETRACHLOROETHYLENE-ST. PAUL MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	30.35	4.34E-04	1.52E-05
weekly	64.7	4.33	6.19E-05	2.17E-06
monthly	15.1	1.01	1.45E-05	5.06E-07
bimonthly	7.4	0.50	7.08E-06	2.48E-07
twice/year	2.5	0.17	2.39E-06	8.38E-08
yearly	1.2	0.08	1.15E-06	4.02E-08

ETHYLBENZENE-CITY MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	3.62	5.18E-05	0.00227
weekly	64.7	0.52	7.39E-06	0.00032
monthly	15.1	0.12	1.73E-06	0.00008
bimonthly	7.4	0.06	8.46E-07	0.00004
twice/year	2.5	0.02	2.86E-07	0.00001
yearly	1.2	0.01	1.37E-07	0.00001

ETHYLBENZENE-HYLEBOS MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	7.70	1.10E-04	0.00481
weekly	64.7	1.10	1.57E-05	0.00069
monthly	15.1	0.26	3.67E-06	0.00016
bimonthly	7.4	0.13	1.80E-06	0.00008
twice/year	2.5	0.04	6.07E-07	0.00003
yearly	1.2	0.02	2.91E-07	0.00001

XYLENES-TOTAL-CITY MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	13.14	1.88E-04	0.00008
weekly	64.7	1.88	2.68E-05	0.00001
monthly	15.1	0.44	6.26E-06	.00000
bimonthly	7.4	0.21	3.07E-06	.00000
twice/year	2.5	0.07	1.04E-06	.00000
yearly	1.2	0.03	4.97E-07	.00000

XYLENES-TOTAL-HYLEBOS MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
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Table G-2. Risk From Organics in Fish

daily	453.0	32.16	4.59E-04	0.00020
weekly	64.7	4.59	6.56E-05	0.00003
monthly	15.1	1.07	1.53E-05	0.00001
bimonthly	7.4	0.53	7.51E-06	.00000
twice/year	2.5	0.18	2.54E-06	.00000
yearly	1.2	0.09	1.22E-06	.00000

DDE-BLAIR

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	4.18	5.97E-05	0.01195
weekly	64.7	0.60	8.53E-06	0.00171
monthly	15.1	0.14	1.99E-06	0.00040
bimonthly	7.4	0.07	9.76E-07	0.00020
twice/year	2.5	0.02	3.30E-07	0.00007
yearly	1.2	0.01	1.58E-07	0.00003

DDE-CITY MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	5.07	7.25E-05	0.01450
weekly	64.7	0.72	1.04E-05	0.00207
monthly	15.1	0.17	2.42E-06	0.00048
bimonthly	7.4	0.08	1.18E-06	0.00024
twice/year	2.5	0.03	4.00E-07	0.00008
yearly	1.2	0.01	1.92E-07	0.00004

DDE-SITCLM MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	2.72	3.86E-05	0.00777
weekly	64.7	0.39	5.55E-06	0.00111
monthly	15.1	0.09	1.29E-06	0.00026
bimonthly	7.4	0.04	6.34E-07	0.00013
twice/year	2.5	0.02	2.14E-07	0.00004
yearly	1.2	0.01	1.03E-07	0.00002

DDE-HYLEBOS MM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	3.10	4.43E-05	0.00885
weekly	64.7	0.44	6.32E-06	0.00126
monthly	15.1	0.10	1.48E-06	0.00030

Table G-2. Risk From Organics in Fish

bimonthly	7.4	0.05	7.23E-07	0.00014
twice/year	2.5	0.02	2.44E-07	0.00005
yearly	1.2	0.01	1.17E-07	0.00002

DDE-MIDDLE MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	1.40	1.99E-05	0.00399
weekly	64.7	0.20	2.85E-06	0.00057
monthly	15.1	0.05	6.64E-07	0.00013
bimonthly	7.4	0.02	3.26E-07	0.00007
twice/year	2.5	0.01	1.10E-07	0.00002
yearly	1.2	.00	5.28E-08	0.00001

DDE-MILWAUKEE MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	2.75	3.93E-05	0.00787
weekly	64.7	0.39	5.62E-06	0.00112
monthly	15.1	0.09	1.31E-06	0.00026
bimonthly	7.4	0.04	6.43E-07	0.00013
twice/year	2.5	0.02	2.17E-07	0.00004
yearly	1.2	0.01	1.04E-07	0.00002

DDE- RUSTON SHORES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	2.35	3.36E-05	0.00672
weekly	64.7	0.34	4.80E-06	0.00096
monthly	15.1	0.08	1.12E-06	0.00022
bimonthly	7.4	0.04	5.49E-07	0.00011
twice/year	2.5	0.01	1.85E-07	0.00004
yearly	1.2	0.01	8.90E-08	0.00002

DDE- ST. PAUL MW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	1.34	1.92E-05	0.00383
weekly	64.7	0.19	2.74E-06	0.00055
monthly	15.1	0.04	6.39E-07	0.00013
bimonthly	7.4	0.02	3.13E-07	0.00006
twice/year	2.5	0.01	1.06E-07	0.00002
yearly	1.2	.00	5.07E-08	0.00001

Table G-2. Risk From Organics in Fish

PCB'S-TOTAL-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	16.31	2.33E-04	1.01E-03
weekly	64.7	2.33	3.33E-05	1.44E-04
monthly	15.1	0.54	7.77E-06	3.37E-05
bimonthly	7.4	0.27	3.81E-06	1.65E-05
twice/year	2.5	0.09	1.29E-06	5.58E-06
yearly	1.2	0.04	6.17E-07	2.68E-06

FLUOROTRICHLOROMETHANE-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	43.04	6.15E-04	0.000214
weekly	64.7	6.15	8.78E-05	0.000031
monthly	15.1	1.43	2.05E-05	0.000007
bimonthly	7.4	0.70	1.00E-05	0.000003
twice/year	2.5	0.24	3.39E-06	0.000001
yearly	1.2	0.11	1.63E-06	0.000001

ETHYLBENZENE-ST. PAUL WW
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	7.25	1.04E-04	0.165669
weekly	64.7	1.04	1.48E-05	0.023662
monthly	15.1	0.24	3.45E-06	0.005522
bimonthly	7.4	0.12	1.69E-06	0.002706
twice/year	2.5	0.04	5.71E-07	0.000914
yearly	1.2	0.02	2.74E-07	0.000439

TOLUENE-ST. PAUL WW
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	4.98	7.12E-05	0.000037
weekly	64.7	0.71	1.02E-05	0.000005
monthly	15.1	0.17	2.37E-06	0.000001
bimonthly	7.4	0.08	1.16E-06	0.000001
twice/year	2.5	0.03	3.93E-07	.000000
yearly	1.2	0.01	1.89E-07	.000000

TOLUENE-CARR INLET
FISH SUMMARIES

Table G-2. Risk From Organics in Fish

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	4.98	7.12E-05	0.000037
weekly	64.7	0.71	1.02E-05	0.000005
monthly	15.1	0.17	2.37E-06	0.000001
bimonthly	7.4	0.08	1.16E-06	0.000001
twice/year	2.5	0.03	3.93E-07	.000000
yearly	1.2	0.01	1.89E-07	.000000

TETRACHLOROETHYLENE-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	3.17	4.53E-05	0.000002
weekly	64.7	0.45	6.47E-06	.000000
monthly	15.1	0.11	1.51E-06	.000000
bimonthly	7.4	0.05	7.40E-07	.000000
twice/year	2.5	0.02	2.50E-07	.000000
yearly	1.2	0.01	1.20E-07	.000000

DI-N-OCTYL PHTHALATE-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	8.15	1.16E-04	0.00453
weekly	64.7	1.16	1.66E-05	0.00065
monthly	15.1	0.27	3.88E-06	0.00015
bimonthly	7.4	0.13	1.90E-06	0.00007
twice/year	2.5	0.05	6.43E-07	0.00003
yearly	1.2	0.02	3.09E-07	0.00001

DI-N-BUTYL PHTHALATE-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	9.51	1.36E-04	0.00529
weekly	64.7	1.36	1.94E-05	0.00075
monthly	15.1	0.32	4.53E-06	0.00018
bimonthly	7.4	0.16	2.22E-06	0.00009
twice/year	2.5	0.05	7.50E-07	0.00003
yearly	1.2	0.03	3.60E-07	0.00001

BIS(2-ETHYL-HEXYL)-PHTHALATE-CARR INLET
FISH SUMMARIES

Table G-2. Risk From Organics in Fish

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	15.86	2.27E-04	3.19E-06
weekly	64.7	2.26	3.24E-05	4.56E-07
monthly	15.1	0.53	7.55E-06	1.06E-07
bimonthly	7.4	0.26	3.70E-06	5.22E-08
twice/year	2.5	0.09	1.25E-06	1.76E-08
yearly	1.2	0.04	6.00E-07	8.46E-09

NAPHTHALENE-SITCUM IN
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	8.15	1.16E-04	0.00453
weekly	64.7	1.16	1.66E-05	0.00065
monthly	15.1	0.27	3.88E-06	0.00015
bimonthly	7.4	0.13	1.90E-06	0.00007
twice/year	2.5	0.05	6.43E-07	0.00003
yearly	1.2	0.02	3.09E-07	0.00001

NAPHTHALENE-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	24.46	3.49E-04	0.01359
weekly	64.7	3.49	4.99E-05	0.00194
monthly	15.1	0.82	1.16E-05	0.00045
bimonthly	7.4	0.40	5.71E-06	0.00022
twice/year	2.5	0.14	1.93E-06	0.00008
yearly	1.2	0.06	9.26E-07	0.00004

DDE-CARR INLET
FISH SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	0.82	1.17E-05	0.00234
weekly	64.7	0.12	1.67E-06	0.00033
monthly	15.1	0.03	3.90E-07	0.00008
bimonthly	7.4	0.01	1.91E-07	0.00004
twice/year	2.5	.00	6.46E-08	0.00001
yearly	1.2	.00	3.10E-08	0.00001

TABLE G-3. RISK FROM METALS IN CRABS

ANTIMONY				
FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	481.63	6.88E-03	1.63
weekly	64.7	68.79	9.83E-04	0.24
monthly	15.1	16.05	2.29E-04	0.05
bimonthly	7.4	7.87	1.12E-04	0.03
twice/year	2.5	2.66	3.80E-05	0.01
yearly	1.2	1.28	1.82E-05	.00

ARSENIC				
FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	898.84	1.54E-05	2.16E-04
weekly	64.7	128.38	2.20E-06	3.08E-05
monthly	15.1	29.96	5.14E-07	7.19E-06
bimonthly	7.4	14.68	2.52E-07	3.52E-06
twice/year	2.5	4.96	8.50E-08	1.19E-06
yearly	1.2	2.38	4.08E-08	5.71E-07

CADMIUM				
FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	416.76	5.95E-03	0.595
weekly	64.7	59.52	8.50E-04	0.085
monthly	15.1	13.89	1.98E-04	0.020
bimonthly	7.4	6.81	9.73E-05	0.010
twice/year	2.5	2.30	3.29E-05	0.003
yearly	1.2	1.10	1.58E-05	0.002

CHROMIUM				
FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	453.0	97.26	1.39E-03	0.556
weekly	64.7	13.89	1.98E-04	0.079
monthly	15.1	3.24	4.63E-05	0.019
bimonthly	7.4	1.59	2.27E-05	0.009
twice/year	2.5	0.54	7.67E-06	0.003
yearly	1.2	0.26	3.68E-06	0.001

LEAD				
FREQUENCY	INTAKE	EXPOSURE	EXPOSURE	INDIVIDUAL

TABLE 6-3. RISK FROM METALS IN CRABS

	g/day	ug/day	mg/kg/day	RISK
daily	453.0	216.94	3.10E-03	2.17
weekly	64.7	30.98	4.43E-04	0.31
monthly	15.1	7.23	1.03E-04	0.07
bimonthly	7.4	3.54	5.06E-05	0.04
twice/year	2.5	1.20	1.71E-05	0.01
yearly	1.2	0.57	8.21E-06	0.01

MANGANESE

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	128.97	1.84E-03	0.0129
weekly	64.7	18.42	2.63E-04	0.0018
monthly	15.1	4.30	6.14E-05	0.0004
bimonthly	7.4	2.11	3.01E-05	0.0002
twice/year	2.5	0.71	1.02E-05	0.0001
yearly	1.2	0.34	4.88E-06	.0000

NICKEL

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	39.96	5.71E-04	0.0274
weekly	64.7	5.71	8.15E-05	0.0039
monthly	15.1	1.33	1.90E-05	0.0009
bimonthly	7.4	0.65	9.33E-06	0.0004
twice/year	2.5	0.22	3.15E-06	0.0002
yearly	1.2	0.11	1.51E-06	0.0001

SELENIUM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	88.22	1.26E-03	0.13
weekly	64.7	12.60	1.80E-04	0.02
monthly	15.1	2.94	4.20E-05	.00
bimonthly	7.4	1.44	2.06E-05	.00
twice/year	2.5	0.49	6.96E-06	.00
yearly	1.2	0.23	3.34E-06	.00

SILVER

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.0	62.68	8.95E-04	3.92
weekly	64.7	8.95	1.28E-04	0.56

TABLE G-3. RISK FROM METALS IN CRABS

monthly	15.1	2.09	2.98E-05	0.13
bimonthly	7.4	1.02	1.46E-05	0.06
twice/year	2.5	0.35	4.94E-06	0.02
yearly	1.2	0.17	2.37E-06	0.01

ZINC

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	18072.30	2.58E-01	1.20
weekly	64.7	2581.19	3.69E-02	0.17
monthly	15.1	602.41	8.61E-03	0.04
bimonthly	7.4	295.22	4.22E-03	0.02
twice/year	2.5	99.74	1.42E-03	0.01
yearly	1.2	47.87	6.84E-04	.00

MERCURY

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	46.64	6.66E-04	2.33
weekly	64.7	6.66	9.52E-05	0.33
monthly	15.1	1.55	2.22E-05	0.08
bimonthly	7.4	0.76	1.09E-05	0.04
twice/year	2.5	0.26	3.68E-06	0.01
yearly	1.2	0.12	1.76E-06	0.01

TABLE G-3. RISKS FROM METALS IN CRABS

ANTIMONY-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ANTIMONY-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	539.40	7.71E-03	1.85
weekly	64.7	80.23	1.15E-03	0.27
monthly	15.1	18.72	2.67E-04	0.06
bimonthly	7.4	9.18	1.31E-04	0.03
twice/year	2.5	3.10	4.43E-05	0.01
yearly	1.2	1.49	2.13E-05	0.01

ANTIMONY-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ANTIMONY-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ANTIMONY-MIDDLE WW

TABLE G-3. RISKS FROM METALS IN CRABS

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ANTIMONY-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ANTIMONY-SITCLIM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ANTIMONY-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	435.00	6.21E-03	1.49
weekly	64.7	64.70	9.24E-04	0.22
monthly	15.1	15.10	2.16E-04	0.05
bimonthly	7.4	7.40	1.06E-04	0.03
twice/year	2.5	2.50	3.57E-05	0.01
yearly	1.2	1.20	1.71E-05	.00

ARSENIC-BLAIR WW

TABLE G-3. RISKS FROM METALS IN CRABS

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	0.63	8.95E-06	1.25E-04
weekly	64.7	0.09	1.33E-06	1.86E-05
monthly	15.1	0.02	3.11E-07	4.35E-06
bimonthly	7.4	0.01	1.52E-07	2.13E-06
twice/year	2.5	.00	5.14E-08	7.20E-07
yearly	1.2	.00	2.47E-08	3.46E-07

ARSENIC-CITY IN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	1.49	2.13E-05	2.99E-04
weekly	64.7	0.22	3.17E-06	4.44E-05
monthly	15.1	0.05	7.40E-07	1.04E-05
bimonthly	7.4	0.03	3.63E-07	5.08E-06
twice/year	2.5	0.01	1.23E-07	1.72E-06
yearly	1.2	.00	5.88E-08	8.24E-07

ARSENIC-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	1.24	1.77E-05	2.48E-04
weekly	64.7	0.18	2.63E-06	3.68E-05
monthly	15.1	0.04	6.14E-07	8.59E-06
bimonthly	7.4	0.02	3.01E-07	4.21E-06
twice/year	2.5	0.01	1.02E-07	1.42E-06
yearly	1.2	.00	4.88E-08	6.83E-07

ARSENIC-HYLEBOS IN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	1.04	1.49E-05	2.09E-04
weekly	64.7	0.16	2.22E-06	3.11E-05
monthly	15.1	0.04	5.18E-07	7.25E-06
bimonthly	7.4	0.02	2.54E-07	3.55E-06
twice/year	2.5	0.01	8.57E-08	1.20E-06
yearly	1.2	.00	4.11E-08	5.76E-07

ARSENIC-MIDDLE IN

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	0.99	1.42E-05	1.98E-04

TABLE G-3. RISKS FROM METALS IN CRABS

weekly	64.7	0.15	2.11E-06	2.95E-05
monthly	15.1	0.03	4.32E-07	6.89E-06
bimonthly	7.4	0.02	2.41E-07	3.37E-06
twice/year	2.5	0.01	8.14E-08	1.14E-06
yearly	1.2	.00	3.91E-08	5.47E-07

ARSENIC-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	0.68	9.69E-06	1.36E-04
weekly	64.7	0.10	1.44E-06	2.02E-05
monthly	15.1	0.02	3.37E-07	4.71E-06
bimonthly	7.4	0.01	1.65E-07	2.31E-06
twice/year	2.5	.00	5.57E-08	7.80E-07
yearly	1.2	.00	2.67E-08	3.74E-07

ARSENIC-SITCLUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	1.10	1.57E-05	2.19E-04
weekly	64.7	0.16	2.33E-06	3.26E-05
monthly	15.1	0.04	5.44E-07	7.61E-06
bimonthly	7.4	0.02	2.66E-07	3.73E-06
twice/year	2.5	0.01	9.00E-08	1.26E-06
yearly	1.2	.00	4.32E-08	6.05E-07

ARSENIC-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	0.78	1.12E-05	1.57E-04
weekly	64.7	0.12	1.66E-06	2.33E-05
monthly	15.1	0.03	3.88E-07	5.44E-06
bimonthly	7.4	0.01	1.90E-07	2.66E-06
twice/year	2.5	.00	6.43E-08	9.00E-07
yearly	1.2	.00	3.09E-08	4.32E-07

CADMIUM-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	40.02	5.72E-04	0.0572
weekly	64.7	5.95	8.50E-05	0.0085
monthly	15.1	1.39	1.98E-05	0.0020
bimonthly	7.4	0.68	9.73E-06	0.0010
twice/year	2.5	0.23	3.29E-06	0.0003

TABLE G-3. RISKS FROM METALS IN CRABS

yearly	1.2	0.11	1.58E-06	0.0002
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CADMIUM-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	36.02	5.15E-04	0.0515
weekly	64.7	5.36	7.65E-05	0.0077
monthly	15.1	1.25	1.79E-05	0.0018
bimonthly	7.4	0.61	8.75E-06	0.0009
twice/year	2.5	0.21	2.96E-06	0.0003
yearly	1.2	0.10	1.42E-06	0.0001

CADMIUM-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	64.32	9.19E-04	0.0919
weekly	64.7	9.57	1.37E-04	0.0137
monthly	15.1	2.23	3.19E-05	0.0032
bimonthly	7.4	1.09	1.56E-05	0.0016
twice/year	2.5	0.37	5.28E-06	0.0005
yearly	1.2	0.18	2.53E-06	0.0003

CADMIUM-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	6.53	9.32E-05	0.0093
weekly	64.7	0.97	1.39E-05	0.0014
monthly	15.1	0.23	3.24E-06	0.0003
bimonthly	7.4	0.11	1.59E-06	0.0002
twice/year	2.5	0.04	5.36E-07	0.0001
yearly	1.2	0.02	2.57E-07	.0000

CADMIUM-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	76.13	1.09E-03	0.1088
weekly	64.7	11.32	1.62E-04	0.0162
monthly	15.1	2.64	3.78E-05	0.0038
bimonthly	7.4	1.30	1.85E-05	0.0019
twice/year	2.5	0.44	6.25E-06	0.0006
yearly	1.2	0.21	3.00E-06	0.0003

CADMIUM-MILWAUKEE WW

TABLE G-3. RISKS FROM METALS IN CRABS

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	5.66	8.08E-05	0.0081
weekly	64.7	0.84	1.20E-05	0.0012
monthly	15.1	0.20	2.80E-06	0.0003
bimonthly	7.4	0.10	1.37E-06	0.0001
twice/year	2.5	0.03	4.64E-07	.0000
yearly	1.2	0.02	2.23E-07	.0000

CADMIUM-SITCLUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	20.88	2.98E-04	0.0298
weekly	64.7	3.11	4.44E-05	0.0044
monthly	15.1	0.72	1.04E-05	0.0010
bimonthly	7.4	0.36	5.07E-06	0.0005
twice/year	2.5	0.12	1.71E-06	0.0002
yearly	1.2	0.06	8.23E-07	0.0001

CADMIUM-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	435.0	269.70	3.85E-03	0.3853
weekly	64.7	40.11	5.73E-04	0.0573
monthly	15.1	9.36	1.34E-04	0.0134
bimonthly	7.4	4.59	6.55E-05	0.0066
twice/year	2.5	1.55	2.21E-05	0.0022
yearly	1.2	0.74	1.06E-05	0.0011

CHROMIUM-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	95.70	1.37E-03	0.55
weekly	64.7	14.23	2.03E-04	0.08
monthly	15.1	3.32	4.75E-05	0.02
bimonthly	7.4	1.63	2.33E-05	0.01
twice/year	2.5	0.55	7.86E-06	.00
yearly	1.2	0.25	3.77E-06	.00

CHROMIUM-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
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TABLE G-3. RISKS FROM METALS IN CRABS

daily	435.0	95.70	1.37E-03	0.55
weekly	64.7	14.23	2.03E-04	0.08
monthly	15.1	3.32	4.75E-05	0.02
bimonthly	7.4	1.63	2.33E-05	0.01
twice/year	2.5	0.55	7.86E-06	.00
yearly	1.2	0.26	3.77E-06	.00

CHROMIUM-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	103.14	1.47E-03	0.59
weekly	64.7	15.34	2.19E-04	0.09
monthly	15.1	3.58	5.11E-05	0.02
bimonthly	7.4	1.75	2.51E-05	0.01
twice/year	2.5	0.59	8.47E-06	.00
yearly	1.2	0.28	4.06E-06	.00

CHROMIUM-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	113.10	1.62E-03	0.65
weekly	64.7	16.82	2.40E-04	0.10
monthly	15.1	3.93	5.61E-05	0.02
bimonthly	7.4	1.92	2.75E-05	0.01
twice/year	2.5	0.65	9.29E-06	.00
yearly	1.2	0.31	4.46E-06	.00

CHROMIUM-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	108.75	1.55E-03	0.62
weekly	64.7	16.18	2.31E-04	0.09
monthly	15.1	3.78	5.39E-05	0.02
bimonthly	7.4	1.85	2.64E-05	0.01
twice/year	2.5	0.63	8.93E-06	.00
yearly	1.2	0.30	4.29E-06	.00

CHROMIUM-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	60.90	8.70E-04	0.35
weekly	64.7	9.06	1.29E-04	0.05
monthly	15.1	2.11	3.02E-05	0.01
bimonthly	7.4	1.04	1.48E-05	0.01

TABLE G-3. RISKS FROM METALS IN CRABS

twice/year	2.5	0.35	5.00E-06	.00
yearly	1.2	0.17	2.40E-06	.00

CHROMIUM-SITCLUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	115.36	1.65E-03	0.66
weekly	64.7	17.16	2.45E-04	0.10
monthly	15.1	4.00	5.72E-05	0.02
bimonthly	7.4	1.96	2.80E-05	0.01
twice/year	2.5	0.66	9.47E-06	.00
yearly	1.2	0.32	4.55E-06	.00

CHROMIUM-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—VI RISK (unitless)
daily	435.0	108.75	1.55E-03	0.62
weekly	64.7	16.18	2.31E-04	0.09
monthly	15.1	3.78	5.39E-05	0.02
bimonthly	7.4	1.85	2.64E-05	0.01
twice/year	2.5	0.63	8.93E-06	.00
yearly	1.2	0.30	4.29E-06	.00

TABLE G-3. RISKS FROM METALS IN CRABS

LEAD-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	81.54	1.16E-03	0.82
weekly	64.70	11.65	1.66E-04	0.12
monthly	15.10	2.72	3.88E-05	0.03
bimonthly	7.40	1.33	1.90E-05	0.01
twice/year	2.50	0.45	6.43E-06	.00
yearly	1.20	0.22	3.09E-06	.00

LEAD-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	241.90	3.46E-03	2.42
weekly	64.70	34.55	4.94E-04	0.35
monthly	15.10	8.06	1.15E-04	0.08
bimonthly	7.40	3.95	5.65E-05	0.04
twice/year	2.50	1.34	1.91E-05	0.01
yearly	1.20	0.64	9.15E-06	0.01

LEAD-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	88.65	1.27E-03	0.89
weekly	64.70	12.66	1.81E-04	0.13
monthly	15.10	2.96	4.22E-05	0.03
bimonthly	7.40	1.45	2.07E-05	0.01
twice/year	2.50	0.49	6.99E-06	.00
yearly	1.20	0.23	3.35E-06	.00

LEAD-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	104.19	1.49E-03	1.04
weekly	64.70	14.88	2.13E-04	0.15
monthly	15.10	3.47	4.96E-05	0.03
bimonthly	7.40	1.70	2.43E-05	0.02
twice/year	2.50	0.58	8.21E-06	0.01
yearly	1.20	0.28	3.94E-06	.00

LEAD-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
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TABLE G-3. RISKS FROM METALS IN CRABS

daily	453.00	144.96	2.07E-03	1.45
weekly	64.70	20.70	2.96E-04	0.21
monthly	15.10	4.83	6.90E-05	0.05
bimonthly	7.40	2.37	3.38E-05	0.02
twice/year	2.50	0.80	1.14E-05	0.01
yearly	1.20	0.38	5.49E-06	.00

LEAD-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	138.62	1.98E-03	1.39
weekly	64.70	19.80	2.83E-04	0.20
monthly	15.10	4.62	6.60E-05	0.05
bimonthly	7.40	2.26	3.23E-05	0.02
twice/year	2.50	0.77	1.09E-05	0.01
yearly	1.20	0.37	5.25E-06	.00

LEAD-SITCUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	420.16	6.00E-03	4.20
weekly	64.70	60.01	8.57E-04	0.60
monthly	15.10	14.01	2.00E-04	0.14
bimonthly	7.40	6.86	9.81E-05	0.07
twice/year	2.50	2.32	3.31E-05	0.02
yearly	1.20	1.11	1.59E-05	0.01

LEAD-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	63.42	9.06E-04	0.63
weekly	64.70	9.06	1.29E-04	0.09
monthly	15.10	2.11	3.02E-05	0.02
bimonthly	7.40	1.04	1.48E-05	0.01
twice/year	2.50	0.35	5.00E-06	.00
yearly	1.20	0.17	2.40E-06	.00

MANGANESE-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	185.73	2.65E-03	0.02
weekly	64.70	26.53	3.79E-04	.00
monthly	15.10	6.19	8.84E-05	.00

TABLE 3-3. RISKS FROM METALS IN CRABS

bimonthly	7.40	3.03	4.33E-05	.00
twice/year	2.50	1.03	1.46E-05	.00
yearly	1.20	0.49	7.03E-06	.00

MANGANESE-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	114.16	1.63E-03	0.01
weekly	64.70	16.30	2.33E-04	.00
monthly	15.10	3.81	5.44E-05	.00
bimonthly	7.40	1.86	2.66E-05	.00
twice/year	2.50	0.63	9.00E-06	.00
yearly	1.20	0.30	4.32E-06	.00

MANGANESE-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	232.34	3.32E-03	0.02
weekly	64.70	33.18	4.74E-04	.00
monthly	15.10	7.74	1.11E-04	.00
bimonthly	7.40	3.80	5.42E-05	.00
twice/year	2.50	1.28	1.83E-05	.00
yearly	1.20	0.62	8.79E-06	.00

MANGANESE-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	176.67	2.52E-03	0.02
weekly	64.70	25.23	3.60E-04	.00
monthly	15.10	5.89	8.41E-05	.00
bimonthly	7.40	2.89	4.12E-05	.00
twice/year	2.50	0.98	1.39E-05	.00
yearly	1.20	0.47	6.69E-06	.00

MANGANESE-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	183.47	2.62E-03	0.02
weekly	64.70	26.20	3.74E-04	.00
monthly	15.10	6.12	8.74E-05	.00
bimonthly	7.40	3.00	4.28E-05	.00
twice/year	2.50	1.01	1.45E-05	.00
yearly	1.20	0.49	6.94E-06	.00

TABLE 6-3. RISKS FROM METALS IN CRABS

MANGANESE-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	139.52	1.99E-03	0.01
weekly	64.70	19.93	2.85E-04	.00
monthly	15.10	4.65	6.64E-05	.00
bimonthly	7.40	2.28	3.26E-05	.00
twice/year	2.50	0.77	1.10E-05	.00
yearly	1.20	0.37	5.28E-06	.00

MANGANESE-SITCLUN WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	90.60	1.29E-03	0.01
weekly	64.70	12.94	1.85E-04	.00
monthly	15.10	3.02	4.31E-05	.00
bimonthly	7.40	1.48	2.11E-05	.00
twice/year	2.50	0.50	7.14E-06	.00
yearly	1.20	0.24	3.43E-06	.00

MANGANESE-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	90.60	1.29E-03	0.01
weekly	64.70	12.94	1.85E-04	.00
monthly	15.10	3.02	4.31E-05	.00
bimonthly	7.40	1.48	2.11E-05	.00
twice/year	2.50	0.50	7.14E-06	.00
yearly	1.20	0.24	3.43E-06	.00

NICKEL-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK (unitless)	
daily	453.00	34.43	4.92E-04	2.358E-02
weekly	64.70	4.92	7.02E-05	3.368E-03
monthly	15.10	1.15	1.64E-05	7.860E-04
bimonthly	7.40	0.56	8.03E-06	3.852E-04
twice/year	2.50	0.19	2.71E-06	1.301E-04
yearly	1.20	0.09	1.30E-06	6.247E-05

NICKEL-CITY WW

FREQUENCY	INTAKE	EXPOSURE	EXPOSURE INDIVIDUAL	
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TABLE 6-3. RISKS FROM METALS IN CRABS.

	g/day	ug/day	mg/kg/day	RISK (unitless)
daily	453.00	33.98	4.85E-04	2.327E-02
weekly	64.70	4.85	6.93E-05	3.324E-03
monthly	15.10	1.13	1.62E-05	7.757E-04
bimonthly	7.40	0.56	7.93E-06	3.801E-04
twice/year	2.50	0.19	2.68E-06	1.284E-04
yearly	1.20	0.09	1.29E-06	6.164E-05

NICKEL-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	48.67	6.95E-04	3.333E-02
weekly	64.70	6.95	9.93E-05	4.761E-03
monthly	15.10	1.62	2.32E-05	1.111E-03
bimonthly	7.40	0.79	1.14E-05	5.445E-04
twice/year	2.50	0.27	3.84E-06	1.840E-04
yearly	1.20	0.13	1.84E-06	8.830E-05

NICKEL-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	99.66	1.42E-03	6.826E-02
weekly	64.70	14.23	2.03E-04	9.749E-03
monthly	15.10	3.32	4.75E-05	2.275E-03
bimonthly	7.40	1.63	2.33E-05	1.115E-03
twice/year	2.50	0.55	7.86E-06	3.767E-04
yearly	1.20	0.26	3.77E-06	1.808E-04

NICKEL-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	57.76	8.25E-04	3.956E-02
weekly	64.70	8.25	1.18E-04	5.650E-03
monthly	15.10	1.93	2.75E-05	1.319E-03
bimonthly	7.40	0.94	1.35E-05	6.462E-04
twice/year	2.50	0.32	4.55E-06	2.183E-04
yearly	1.20	0.15	2.19E-06	1.048E-04

NICKEL-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	33.98	4.85E-04	2.327E-02
weekly	64.70	4.85	6.93E-05	3.324E-03

TABLE G-3. RISKS FROM METALS IN CRABS

monthly	15.10	1.13	1.62E-05	7.757E-04
bimonthly	7.40	0.56	7.93E-06	3.801E-04
twice/year	2.50	0.19	2.68E-06	1.284E-04
yearly	1.20	0.09	1.29E-06	6.164E-05

NICKEL-SITCUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	33.98	4.85E-04	2.327E-02
weekly	64.70	4.85	6.93E-05	3.324E-03
monthly	15.10	1.13	1.62E-05	7.757E-04
bimonthly	7.40	0.56	7.93E-06	3.801E-04
twice/year	2.50	0.19	2.68E-06	1.284E-04
yearly	1.20	0.09	1.29E-06	6.164E-05

NICKEL-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	33.98	4.85E-04	2.327E-02
weekly	64.70	4.85	6.93E-05	3.324E-03
monthly	15.10	1.13	1.62E-05	7.757E-04
bimonthly	7.40	0.56	7.93E-06	3.801E-04
twice/year	2.50	0.19	2.68E-06	1.284E-04
yearly	1.20	0.09	1.29E-06	6.164E-05

SELENIUM-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	45.30	6.47E-04	6.471E-02
weekly	64.70	6.47	9.24E-05	9.243E-03
monthly	15.10	1.51	2.16E-05	2.157E-03
bimonthly	7.40	0.74	1.06E-05	1.057E-03
twice/year	2.50	0.25	3.57E-06	3.571E-04
yearly	1.20	0.12	1.71E-06	1.714E-04

SELENIUM-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	201.13	2.87E-03	2.873E-01
weekly	64.70	28.73	4.10E-04	4.104E-02
monthly	15.10	6.70	9.58E-05	9.578E-03
bimonthly	7.40	3.29	4.69E-05	4.694E-03
twice/year	2.50	1.11	1.59E-05	1.586E-03
yearly	1.20	0.53	7.61E-06	7.611E-04

TABLE G-3. RISKS FROM METALS IN CRABS

SELENIUM-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	62.77	8.97E-04	8.967E-02
weekly	64.70	8.97	1.28E-04	1.281E-02
monthly	15.10	2.09	2.99E-05	2.989E-03
bimonthly	7.40	1.03	1.46E-05	1.465E-03
twice/year	2.50	0.35	4.95E-06	4.949E-04
yearly	1.20	0.17	2.38E-06	2.375E-04

SELENIUM-HYLESOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	72.48	1.04E-03	1.035E-01
weekly	64.70	10.35	1.48E-04	1.479E-02
monthly	15.10	2.42	3.45E-05	3.451E-03
bimonthly	7.40	1.18	1.69E-05	1.691E-03
twice/year	2.50	0.40	5.71E-06	5.714E-04
yearly	1.20	0.19	2.74E-06	2.743E-04

SELENIUM-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	49.83	7.12E-04	7.119E-02
weekly	64.70	7.12	1.02E-04	1.017E-02
monthly	15.10	1.66	2.37E-05	2.373E-03
bimonthly	7.40	0.81	1.16E-05	1.163E-03
twice/year	2.50	0.28	3.93E-06	3.929E-04
yearly	1.20	0.13	1.89E-06	1.886E-04

SELENIUM-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	45.30	6.47E-04	6.471E-02
weekly	64.70	6.47	9.24E-05	9.243E-03
monthly	15.10	1.51	2.16E-05	2.157E-03
bimonthly	7.40	0.74	1.06E-05	1.057E-03
twice/year	2.50	0.25	3.57E-06	3.571E-04
yearly	1.20	0.12	1.71E-06	1.714E-04

SELENIUM-SITOUN WW

TABLE 6-3. RISKS FROM METALS IN CRABS

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	45.30	6.47E-04	6.471E-02
weekly	64.70	6.47	9.24E-05	9.243E-03
monthly	15.10	1.51	2.16E-05	2.157E-03
bimonthly	7.40	0.74	1.06E-05	1.057E-03
twice/year	2.50	0.25	3.57E-06	3.571E-04
yearly	1.20	0.12	1.71E-06	1.714E-04

SELENIUM-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	45.30	6.47E-04	6.471E-02
weekly	64.70	6.47	9.24E-05	9.243E-03
monthly	15.10	1.51	2.16E-05	2.157E-03
bimonthly	7.40	0.74	1.06E-05	1.057E-03
twice/year	2.50	0.25	3.57E-06	3.571E-04
yearly	1.20	0.12	1.71E-06	1.714E-04

SILVER-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	58.89	8.41E-04	3.68
weekly	64.70	8.41	1.20E-04	0.53
monthly	15.10	1.96	2.80E-05	0.12
bimonthly	7.40	0.96	1.37E-05	0.06
twice/year	2.50	0.33	4.64E-06	0.02
yearly	1.20	0.16	2.23E-06	0.01

SILVER-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	71.12	1.02E-03	4.45
weekly	64.70	10.16	1.45E-04	0.63
monthly	15.10	2.37	3.39E-05	0.15
bimonthly	7.40	1.16	1.66E-05	0.07
twice/year	2.50	0.39	5.61E-06	0.02
yearly	1.20	0.19	2.69E-06	0.01

SILVER-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	89.30	1.28E-03	5.58

TABLE G-3. RISKS FROM METALS IN CRABS

weekly	64.70	12.75	1.82E-04	0.80
monthly	15.10	2.98	4.25E-05	0.19
bimonthly	7.40	1.46	2.08E-05	0.09
twice/year	2.50	0.49	7.04E-06	0.03
yearly	1.20	0.24	3.38E-06	0.01

SILVER-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	12.68	1.81E-04	0.79
weekly	64.70	1.81	2.59E-05	0.11
monthly	15.10	0.42	6.04E-06	0.03
bimonthly	7.40	0.21	2.96E-06	0.01
twice/year	2.50	0.07	1.00E-06	.00
yearly	1.20	0.03	4.80E-07	.00

SILVER-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	58.44	8.35E-04	3.65
weekly	64.70	8.35	1.19E-04	0.52
monthly	15.10	1.95	2.78E-05	0.12
bimonthly	7.40	0.95	1.36E-05	0.06
twice/year	2.50	0.32	4.61E-06	0.02
yearly	1.20	0.15	2.21E-06	0.01

SILVER-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	72.48	1.04E-03	4.53
weekly	64.70	10.35	1.48E-04	0.65
monthly	15.10	2.42	3.45E-05	0.15
bimonthly	7.40	1.18	1.69E-05	0.07
twice/year	2.50	0.40	5.71E-06	0.03
yearly	1.20	0.19	2.74E-06	0.01

SILVER-SITCUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	62.85	8.98E-04	3.93
weekly	64.70	8.98	1.28E-04	0.56
monthly	15.10	2.10	2.99E-05	0.13
bimonthly	7.40	1.03	1.47E-05	0.06
twice/year	2.50	0.35	4.96E-06	0.02

TABLE G-3. RISKS FROM METALS IN CRABS

yearly	1.20	0.17	2.38E-06	0.01
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SILVER-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL—A RISK (unitless)
daily	453.00	33.07	4.72E-04	2.07
weekly	64.70	4.72	6.75E-05	0.30
monthly	15.10	1.10	1.57E-05	0.07
bimonthly	7.40	0.54	7.72E-06	0.03
twice/year	2.50	0.18	2.61E-06	0.01
yearly	1.20	0.09	1.25E-06	0.01

ZINC-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.00	19479.00	2.78E-01	1.30
weekly	64.70	2782.10	3.97E-02	0.19
monthly	15.10	649.30	9.28E-03	0.04
bimonthly	7.40	318.20	4.55E-03	0.02
twice/year	2.50	107.50	1.54E-03	0.01
yearly	1.20	51.60	7.37E-04	.00

ZINC-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.00	19841.40	2.83E-01	1.32
weekly	64.70	2833.86	4.05E-02	0.19
monthly	15.10	661.38	9.45E-03	0.04
bimonthly	7.40	324.12	4.63E-03	0.02
twice/year	2.50	109.50	1.56E-03	0.01
yearly	1.20	52.56	7.51E-04	.00

ZINC-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.00	21485.16	3.07E-01	1.43
weekly	64.70	3068.63	4.38E-02	0.20
monthly	15.10	716.17	1.02E-02	0.05
bimonthly	7.40	350.97	5.01E-03	0.02
twice/year	2.50	118.57	1.69E-03	0.01
yearly	1.20	56.91	8.13E-04	.00

ZINC-HYLEBOS WW

TABLE G-3. RISKS FROM METALS IN CRABS

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	19932.00	2.85E-01	1.33
weekly	64.70	2846.80	4.07E-02	0.19
monthly	15.10	664.40	9.49E-03	0.04
bimonthly	7.40	325.60	4.65E-03	0.02
twice/year	2.50	110.00	1.57E-03	0.01
yearly	1.20	52.80	7.54E-04	.00

ZINC-MIDDLE WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	19026.00	2.72E-01	1.27
weekly	64.70	2717.40	3.88E-02	0.18
monthly	15.10	634.20	9.06E-03	0.04
bimonthly	7.40	310.80	4.44E-03	0.02
twice/year	2.50	105.00	1.50E-03	0.01
yearly	1.20	50.40	7.20E-04	.00

ZINC-MILWAUKEE WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	16398.60	2.34E-01	1.09
weekly	64.70	2342.14	3.35E-02	0.16
monthly	15.10	546.62	7.81E-03	0.04
bimonthly	7.40	267.88	3.83E-03	0.02
twice/year	2.50	90.50	1.29E-03	0.01
yearly	1.20	43.44	6.21E-04	.00

ZINC-SITCUM WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
daily	453.00	17100.75	2.44E-01	1.14
weekly	64.70	2442.43	3.49E-02	0.16
monthly	15.10	570.03	8.14E-03	0.04
bimonthly	7.40	279.35	3.99E-03	0.02
twice/year	2.50	94.38	1.35E-03	0.01
yearly	1.20	45.30	5.47E-04	.00

ZINC-ST. PAUL WM

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE INDIVIDUAL mg/kg/day RISK	
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TABLE G-3. RISKS FROM METALS IN CRABS

daily	453.00	16308.00	2.33E-01	1.09
weekly	64.70	2329.20	3.33E-02	0.16
monthly	15.10	543.60	7.77E-03	0.04
bimonthly	7.40	266.40	3.81E-03	0.02
twice/year	2.50	90.00	1.29E-03	0.01
yearly	1.20	43.20	6.17E-04	.00

MERCURY-BLAIR WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	18.12	2.59E-04	0.91
weekly	64.70	2.59	3.70E-05	0.13
monthly	15.10	0.60	8.63E-06	0.03
bimonthly	7.40	0.30	4.23E-06	0.01
twice/year	2.50	0.10	1.43E-06	0.01
yearly	1.20	0.05	6.86E-07	.00

MERCURY-CITY WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	30.62	4.37E-04	1.53
weekly	64.70	4.37	6.25E-05	0.22
monthly	15.10	1.02	1.46E-05	0.05
bimonthly	7.40	0.50	7.15E-06	0.03
twice/year	2.50	0.17	2.41E-06	0.01
yearly	1.20	0.08	1.16E-06	.00

MERCURY-CARR INLET

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	20.19	2.88E-04	1.01
weekly	64.70	2.88	4.12E-05	0.14
monthly	15.10	0.67	9.61E-06	0.03
bimonthly	7.40	0.33	4.71E-06	0.02
twice/year	2.50	0.11	1.59E-06	0.01
yearly	1.20	0.05	7.64E-07	.00

MERCURY-HYLEBOS WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	99.66	1.42E-03	4.98
weekly	64.70	14.23	2.03E-04	0.71
monthly	15.10	3.32	4.75E-05	0.17
bimonthly	7.40	1.63	2.33E-05	0.08

TABLE G-3. RISKS FROM METALS IN CRABS

twice/year	2.50	0.55	7.86E-06	0.03
yearly	1.20	0.26	3.77E-06	0.01

MERCURY-MIDDLE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	22.65	3.24E-04	1.13
weekly	64.70	3.24	4.62E-05	0.16
monthly	15.10	0.76	1.08E-05	0.04
bimonthly	7.40	0.37	5.29E-06	0.02
twice/year	2.50	0.13	1.79E-06	0.01
yearly	1.20	0.06	8.57E-07	.00

MERCURY-MILWAUKEE WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	49.83	7.12E-04	2.49
weekly	64.70	7.12	1.02E-04	0.36
monthly	15.10	1.66	2.37E-05	0.08
bimonthly	7.40	0.81	1.16E-05	0.04
twice/year	2.50	0.28	3.93E-06	0.01
yearly	1.20	0.13	1.89E-06	0.01

MERCURY-SITCUM WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	75.65	1.08E-03	3.78
weekly	64.70	10.80	1.54E-04	0.54
monthly	15.10	2.52	3.60E-05	0.13
bimonthly	7.40	1.24	1.77E-05	0.06
twice/year	2.50	0.42	5.96E-06	0.02
yearly	1.20	0.20	2.86E-06	0.01

MERCURY-ST. PAUL WW

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.00	18.12	2.59E-04	0.91
weekly	64.70	2.59	3.70E-05	0.13
monthly	15.10	0.60	8.63E-06	0.03
bimonthly	7.40	0.30	4.23E-06	0.01
twice/year	2.50	0.10	1.43E-06	0.01
yearly	1.20	0.05	6.86E-07	.00

Table G-4. Risk From Organics in Crabs

BIS(2-ETHYL-HEXYL)-PHTHALATE
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	12.68	1.81E-04	2.55E-06
weekly	64.7	1.81	2.59E-05	3.65E-07
monthly	15.1	0.42	6.04E-06	8.52E-08
bimonthly	7.4	0.21	2.96E-06	4.17E-08
twice/year	2.5	0.07	1.00E-06	1.41E-08
yearly	1.2	0.03	4.80E-07	6.77E-09

DI-N-BUTYL PHTHALATE
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	77.92	1.11E-03	0.0433
weekly	64.7	11.13	1.59E-04	0.0062
monthly	15.1	2.60	3.71E-05	0.0014
bimonthly	7.4	1.27	1.82E-05	0.0007
twice/year	2.5	0.43	6.14E-06	0.0002
yearly	1.2	0.21	2.95E-06	0.0001

NAPHTHALENE
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	33.98	4.85E-04	0.0019
weekly	64.7	4.85	6.93E-05	0.0003
monthly	15.1	1.13	1.62E-05	0.0001
bimonthly	7.4	0.56	7.93E-06	.0000
twice/year	2.5	0.19	2.68E-06	.0000
yearly	1.2	0.09	1.29E-06	.0000

PCB'S-TOTAL
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	47.11	6.73E-04	2.92E-03
weekly	64.7	6.73	9.61E-05	4.17E-04
monthly	15.1	1.57	2.24E-05	9.74E-05
bimonthly	7.4	0.77	1.10E-05	4.77E-05
twice/year	2.5	0.26	3.71E-06	1.61E-05
yearly	1.2	0.12	1.78E-06	7.74E-06

Table 6-4. Risk From Organics in Crabs

PCB'S-TOTAL-CITY WA
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	29.90	4.27E-04	1.85E-03
weekly	64.7	4.27	6.10E-05	2.65E-04
monthly	15.1	1.00	1.42E-05	6.18E-05
bimonthly	7.4	0.49	6.98E-06	3.03E-05
twice/year	2.5	0.17	2.36E-06	1.02E-05
yearly	1.2	0.08	1.13E-06	4.91E-06

PCB'S-TOTAL-MIDDLE WA
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	18.12	2.59E-04	1.12E-03
weekly	64.7	2.59	3.70E-05	1.60E-04
monthly	15.1	0.60	8.63E-06	3.74E-05
bimonthly	7.4	0.30	4.23E-06	1.84E-05
twice/year	2.5	0.10	1.43E-06	6.20E-06
yearly	1.2	0.05	6.86E-07	2.98E-06

PCB'S-TOTAL-MILWAUKEE WA
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	33.52	4.79E-04	2.08E-03
weekly	64.7	4.79	6.84E-05	2.97E-04
monthly	15.1	1.12	1.60E-05	6.93E-05
bimonthly	7.4	0.55	7.82E-06	3.40E-05
twice/year	2.5	0.19	2.64E-06	1.15E-05
yearly	1.2	0.09	1.27E-06	5.51E-06

PCB'S-TOTAL-SITCLIM WA
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	105.55	1.51E-03	6.54E-03
weekly	64.7	15.08	2.15E-04	9.35E-04
monthly	15.1	3.52	5.03E-05	2.18E-04
bimonthly	7.4	1.72	2.46E-05	1.07E-04
twice/year	2.5	0.58	8.32E-06	3.61E-05
yearly	1.2	0.28	3.99E-06	1.73E-05

Table G-4. Risk From Organics in Crabs

CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	112.34	1.60E-03	0.00624
weekly	64.7	16.05	2.29E-04	0.00089
monthly	15.1	3.74	5.35E-05	0.00021
bimonthly	7.4	1.84	2.62E-05	0.00010
twice/year	2.5	0.62	8.86E-06	0.00003
yearly	1.2	0.30	4.25E-06	0.00002

NAPHTHALENE-SITCLUM WA
CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	9.06	1.29E-04	0.00050
weekly	64.7	1.29	1.85E-05	0.00007
monthly	15.1	0.30	4.31E-06	0.00002
bimonthly	7.4	0.15	2.11E-06	0.00001
twice/year	2.5	0.05	7.14E-07	.00000
yearly	1.2	0.02	3.43E-07	.00000

BIS(2-ETHYL-HEXYL)-PHTHALATE-MILWAUKEE WA
CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	12.68	1.81E-04	2.55E-06
weekly	64.7	1.81	2.59E-05	3.65E-07
monthly	15.1	0.42	6.04E-06	8.52E-08
bimonthly	7.4	0.21	2.96E-06	4.17E-08
twice/year	2.5	0.07	1.00E-06	1.41E-08
yearly	1.2	0.03	4.80E-07	6.77E-09

BIS(2-ETHYL-HEXYL)-PHTHALATE-CITY WA
CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	27.18	3.88E-04	5.47E-06
weekly	64.7	3.88	5.55E-05	7.82E-07
monthly	15.1	0.91	1.29E-05	1.82E-07
bimonthly	7.4	0.44	6.34E-06	8.94E-08
twice/year	2.5	0.15	2.14E-06	3.02E-08
yearly	1.2	0.07	1.03E-06	1.45E-08

BIS(2-ETHYL-HEXYL)-PHTHALATE-CARR INLET

Table G-4. Risk From Organics in Crabs

CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	602.94	8.61E-03	1.21E-04
weekly	64.7	86.12	1.23E-03	1.73E-05
monthly	15.1	20.10	2.87E-04	4.05E-06
bimonthly	7.4	9.85	1.41E-04	1.98E-06
twice/year	2.5	3.33	4.75E-05	6.70E-07
yearly	1.2	1.60	2.28E-05	3.22E-07

DI-N-BUTYL PHTHALATE-CARR INLET
CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	244.62	3.49E-03	0.1359
weekly	64.7	34.94	4.99E-04	0.0194
monthly	15.1	8.15	1.16E-04	0.0045
bimonthly	7.4	4.00	5.71E-05	0.0022
twice/year	2.5	1.35	1.93E-05	0.0008
yearly	1.2	0.65	9.26E-06	0.0004

DI-N-OCTYL PHTHALATE-CARR INLET
CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	24.01	3.43E-04	0.0133
weekly	64.7	3.43	4.90E-05	0.0019
monthly	15.1	0.80	1.14E-05	0.0004
bimonthly	7.4	0.39	5.60E-06	0.0002
twice/year	2.5	0.13	1.89E-06	0.0001
yearly	1.2	0.06	9.09E-07	.0000

DDE-CARR INLET
CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	0.471	6.73E-06	0.00135
weekly	64.7	0.067	9.61E-07	0.00019
monthly	15.1	0.016	2.24E-07	0.00004
bimonthly	7.4	0.008	1.10E-07	0.00002
twice/year	2.5	0.003	3.71E-08	0.00001
yearly	1.2	0.001	1.78E-08	.00000

PHENANTHRENE-MIDDLE

Table G-4. Risk From Organics in Crabs

CRABS SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	9.06	1.29E-04
weekly	64.7	1.29	1.85E-05
monthly	15.1	0.30	4.31E-06
bimonthly	7.4	0.15	2.11E-06
twice/year	2.5	0.05	7.14E-07
yearly	1.2	0.02	3.43E-07

PHENANTHRENE
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	4.98	7.12E-05
weekly	64.7	0.71	1.02E-05
monthly	15.1	0.17	2.37E-06
bimonthly	7.4	0.08	1.16E-06
twice/year	2.5	0.03	3.93E-07
yearly	1.2	0.01	1.89E-07

FLUORANTHENE-MIDDLE MW
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	13.14	1.88E-04	0.03128
weekly	64.7	1.88	2.68E-05	0.00447
monthly	15.1	0.44	6.26E-06	0.00104
bimonthly	7.4	0.21	3.07E-06	0.00051
twice/year	2.5	0.07	1.04E-06	0.00017
yearly	1.2	0.03	4.97E-07	0.00008

FLUORANTHENE
CRAB SUMMARIES

FREQUENCY	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK (unitless)
daily	453.0	5.44	7.77E-05	0.01294
weekly	64.7	0.78	1.11E-05	0.00185
monthly	15.1	0.18	2.59E-06	0.00043
bimonthly	7.4	0.09	1.27E-06	0.00021
twice/year	2.5	0.03	4.29E-07	0.00007
yearly	1.2	0.01	2.06E-07	0.00003

TABLE 6-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	NAPHTHYLENE-ALL			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	2512.52	3.59E-02
weekly	64.7	7.8	358.85	5.13E-02
monthly	15.1	1.8	83.75	1.20E-03
bimonthly	7.4	0.9	41.04	5.86E-04
twice/year	2.5	0.3	13.87	1.98E-04
yearly	1.2	0.1	6.66	9.51E-05

FREQUENCY	NAPHTHALENE-CARR			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	4375.98	6.25E-02
weekly	64.7	7.8	625.00	8.93E-03
monthly	15.1	1.8	145.87	2.08E-03
bimonthly	7.4	0.9	71.48	1.02E-03
twice/year	2.5	0.3	24.15	3.45E-04
yearly	1.2	0.1	11.59	1.66E-04

FREQUENCY	HCB-ALL				
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	54.4	2174.40	3.11E-02	5.19E-02
weekly	64.7	7.8	310.56	4.44E-03	7.41E-03
monthly	15.1	1.8	72.48	1.04E-03	1.73E-03
bimonthly	7.4	0.9	35.52	5.07E-04	8.47E-04
twice/year	2.5	0.3	12.00	1.71E-04	2.86E-04
yearly	1.2	0.1	5.76	8.23E-05	1.37E-04

FREQUENCY	HCB-CARR				
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
daily	453.0	54.4	1359.00	1.94E-02	3.24E-02
weekly	64.7	7.8	194.10	2.77E-03	4.63E-03
monthly	15.1	1.8	45.30	6.47E-04	1.08E-03
bimonthly	7.4	0.9	22.20	3.17E-04	5.30E-04
twice/year	2.5	0.3	7.50	1.07E-04	1.79E-04
yearly	1.2	0.1	3.60	5.14E-05	8.59E-05

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TABLE G-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
	INTAKE g/day	INTAKE g/day			
daily	453.0	54.4	7284.24	1.04E-01	1.74E-01
weekly	64.7	7.8	1040.38	1.49E-02	2.48E-02
monthly	15.1	1.8	242.81	3.47E-03	5.79E-03
bimonthly	7.4	0.9	118.99	1.70E-03	2.84E-03
twice/year	2.5	0.3	40.20	5.74E-04	9.59E-04
yearly	1.2	0.1	19.30	2.76E-04	4.60E-04

FREQUENCY	FISH	HCBD-ALL LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
	INTAKE g/day	INTAKE g/day			
daily	453.0	54.4	3680.17	5.26E-02	8.78E-02
weekly	64.7	7.8	525.62	7.51E-03	1.25E-02
monthly	15.1	1.8	122.67	1.75E-03	2.93E-03
bimonthly	7.4	0.9	60.12	8.59E-04	1.43E-03
twice/year	2.5	0.3	20.31	2.90E-04	4.85E-04
yearly	1.2	0.1	9.75	1.39E-04	2.33E-04

FREQUENCY	FISH	HCBD-CARR LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
	INTAKE g/day	INTAKE g/day			
daily	453.0	54.4	2718.00	3.88E-02	3.01E-03
weekly	64.7	7.8	388.20	5.55E-03	4.30E-04
monthly	15.1	1.8	90.60	1.29E-03	1.00E-04
bimonthly	7.4	0.9	44.40	6.34E-04	4.92E-05
twice/year	2.5	0.3	15.00	2.14E-04	1.66E-05
yearly	1.2	0.1	7.20	1.03E-04	7.97E-06

FREQUENCY	FISH	HCBD-HYLEBOS LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day	INDIVIDUAL RISK
	INTAKE g/day	INTAKE g/day			
daily	453.0	54.4	4903.27	7.00E-02	5.43E-03
weekly	64.7	7.8	700.31	1.00E-02	7.75E-04
monthly	15.1	1.8	163.44	2.33E-03	1.81E-04
bimonthly	7.4	0.9	80.10	1.14E-03	8.87E-05
twice/year	2.5	0.3	27.05	3.87E-04	3.00E-05
yearly	1.2	0.1	12.99	1.86E-04	1.44E-05

TABLE G-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	4383.05	6.26E-02
weekly	64.7	7.8	626.01	8.94E-03
monthly	15.1	1.8	146.10	2.09E-03
bimonthly	7.4	0.9	71.60	1.02E-03
twice/year	2.5	0.3	24.19	3.46E-04
yearly	1.2	0.1	11.61	1.66E-04

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	27853.50	3.98E-01
weekly	64.7	7.8	3979.05	5.68E-02
monthly	15.1	1.8	928.65	1.33E-02
bimonthly	7.4	0.9	455.10	6.50E-03
twice/year	2.5	0.3	153.75	2.20E-03
yearly	1.2	0.1	73.80	1.05E-03

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	12812.65	1.83E-01
weekly	64.7	7.8	1829.97	2.61E-02
monthly	15.1	1.8	427.09	6.10E-03
bimonthly	7.4	0.9	209.30	2.99E-03
twice/year	2.5	0.3	70.71	1.01E-03
yearly	1.2	0.1	33.94	4.85E-04

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	52066.01	7.44E-01
weekly	64.7	7.8	7436.36	1.06E-01
monthly	15.1	1.8	1735.52	2.48E-02
bimonthly	7.4	0.9	850.53	1.22E-02
twice/year	2.5	0.3	267.34	4.10E-03
yearly	1.2	0.1	137.92	1.97E-03

FISH BENZYL ALCOHOL-CARR
LIVER

TABLE G-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	INTAKE g/day	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	2718.00	3.88E-02
weekly	64.7	7.8	388.20	5.55E-03
monthly	15.1	1.8	90.60	1.29E-03
bimonthly	7.4	0.9	44.40	6.34E-04
twice/year	2.5	0.3	15.00	2.14E-04
yearly	1.2	0.1	7.20	1.03E-04

FREQUENCY	BENZYL ALCOHOL-RUSTON			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	117341.50	1.68E+00
weekly	64.7	7.8	16753.37	2.39E-01
monthly	15.1	1.8	3911.38	5.59E-02
bimonthly	7.4	0.9	1916.84	2.74E-02
twice/year	2.5	0.3	647.58	9.25E-03
yearly	1.2	0.1	310.84	4.44E-03

FREQUENCY	ARSENIC-ALL				INDIVIDUAL RISK
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	CAUTION EXPOSURE mg/kg/day	
daily	453.0	54.4	715.38	1.02E-02	1.43E-01
weekly	64.7	7.8	102.17	1.46E-03	2.04E-02
monthly	15.1	1.8	23.85	3.41E-04	4.77E-03
bimonthly	7.4	0.9	11.69	1.67E-04	2.34E-03
twice/year	2.5	0.3	3.95	5.64E-05	7.90E-04
yearly	1.2	0.1	1.90	2.71E-05	3.79E-04

FREQUENCY	ARSENIC-CARR				INDIVIDUAL RISK
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	CAUTION EXPOSURE mg/kg/day	
daily	453.0	54.4	603.40	8.62E-03	1.21E-01
weekly	64.7	7.8	86.16	1.23E-03	1.72E-02
monthly	15.1	1.8	20.11	2.87E-04	4.02E-03
bimonthly	7.4	0.9	9.86	1.41E-04	1.97E-03
twice/year	2.5	0.3	3.33	4.75E-05	6.66E-04
yearly	1.2	0.1	1.60	2.28E-05	3.20E-04

BARIUM-ALL
FISH LIVER

TABLE G-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	INTAKE g/day	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	17.29	2.47E-04
weekly	64.7	7.8	2.47	3.53E-05
monthly	15.1	1.8	0.58	6.23E-06
bimonthly	7.4	0.9	0.28	4.03E-06
twice/year	2.5	0.3	0.10	1.36E-06
yearly	1.2	0.1	0.05	6.54E-07

FREQUENCY	FISH INTAKE g/day	BARIUM-CARR LIVER		
		INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	4.35	6.21E-05
weekly	64.7	7.8	0.62	8.87E-06
monthly	15.1	1.8	0.14	2.07E-06
bimonthly	7.4	0.9	0.07	1.01E-06
twice/year	2.5	0.3	0.02	3.43E-07
yearly	1.2	0.1	0.01	1.65E-07

FREQUENCY	FISH INTAKE g/day	CADMIUM-ALL LIVER		
		INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	25.22	3.60E-04
weekly	64.7	7.8	3.60	5.15E-05
monthly	15.1	1.8	0.84	1.20E-05
bimonthly	7.4	0.9	0.41	5.89E-06
twice/year	2.5	0.3	0.14	1.99E-06
yearly	1.2	0.1	0.07	9.55E-07

FREQUENCY	FISH INTAKE g/day	CADMIUM-CARR LIVER		
		INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	22.02	3.15E-04
weekly	64.7	7.8	3.14	4.49E-05
monthly	15.1	1.8	0.73	1.05E-05
bimonthly	7.4	0.9	0.36	5.14E-06
twice/year	2.5	0.3	0.12	1.74E-06
yearly	1.2	0.1	0.06	8.33E-07

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FISH
CHROMIUM-ALL
LIVER

CAUTION

TABLE 6-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	INTAKE g/day	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	42.24	6.03E-04
weekly	64.7	7.8	6.03	6.52E-05
monthly	15.1	1.8	1.41	2.01E-05
bimonthly	7.4	0.9	0.69	9.86E-06
twice/year	2.5	0.3	0.23	3.33E-06
yearly	1.2	0.1	0.11	1.60E-06

FREQUENCY	FISH		CHROMIUM-CARR LIVER		CAUTION
	INTAKE g/day	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	
daily	453.0	54.4	20.11	2.87E-04	
weekly	64.7	7.8	2.87	4.10E-05	
monthly	15.1	1.8	0.67	9.58E-06	
bimonthly	7.4	0.9	0.33	4.69E-06	
twice/year	2.5	0.3	0.11	1.59E-06	
yearly	1.2	0.1	0.05	7.61E-07	

FREQUENCY	FISH		COPPER-ALL LIVER		
	INTAKE g/day	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	
daily	453.0	54.4	613.18	6.76E-03	
weekly	64.7	7.8	87.58	1.25E-03	
monthly	15.1	1.8	20.44	2.92E-04	
bimonthly	7.4	0.9	10.02	1.43E-04	
twice/year	2.5	0.3	3.38	4.83E-05	
yearly	1.2	0.1	1.62	2.32E-05	

FREQUENCY	FISH		COPPER-CARR LIVER		
	INTAKE g/day	INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day	
daily	453.0	54.4	391.39	5.59E-03	
weekly	64.7	7.8	55.90	7.99E-04	
monthly	15.1	1.8	13.05	1.86E-04	
bimonthly	7.4	0.9	6.39	9.13E-05	
twice/year	2.5	0.3	2.15	3.09E-05	
yearly	1.2	0.1	1.04	1.46E-05	

TABLE G-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	24865.89	3.55E-01
weekly	64.7	7.8	3551.49	5.07E-02
monthly	15.1	1.8	828.86	1.18E-02
bimonthly	7.4	0.9	406.20	5.80E-03
twice/year	2.5	0.3	137.23	1.96E-03
yearly	1.2	0.1	65.87	9.41E-04

FREQUENCY	FISH	IRON-CARR LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	8537.60	1.24E-01
weekly	64.7	7.8	1242.24	1.77E-02
monthly	15.1	1.8	283.92	4.14E-03
bimonthly	7.4	0.9	142.08	2.03E-03
twice/year	2.5	0.3	48.00	6.86E-04
yearly	1.2	0.1	23.04	3.29E-04

FREQUENCY	FISH	LEAD-ALL LIVER	EXPOSURE ug/day	CAUTION EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	201.13	2.87E-03
weekly	64.7	7.8	28.73	4.10E-04
monthly	15.1	1.8	6.70	9.58E-05
bimonthly	7.4	0.9	3.29	4.69E-05
twice/year	2.5	0.3	1.11	1.59E-05
yearly	1.2	0.1	0.53	7.61E-06

FREQUENCY	FISH	LEAD-CARR LIVER	EXPOSURE ug/day	CAUTION EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	41.59	5.94E-04
weekly	64.7	7.8	5.94	8.43E-05
monthly	15.1	1.8	1.33	1.92E-05
bimonthly	7.4	0.9	0.68	9.70E-06
twice/year	2.5	0.3	0.23	3.25E-06
yearly	1.2	0.1	0.11	1.57E-06

TABLE G-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	MANGANESE-ALL			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	91.87	1.31E-03
weekly	64.7	7.8	13.12	1.87E-04
monthly	15.1	1.8	3.06	4.37E-05
bimonthly	7.4	0.9	1.50	2.14E-05
twice/year	2.5	0.3	0.51	7.24E-06
yearly	1.2	0.1	0.24	3.48E-06

FREQUENCY	MANGANESE-CARR			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	84.26	1.20E-03
weekly	64.7	7.8	12.03	1.72E-04
monthly	15.1	1.8	2.81	4.01E-05
bimonthly	7.4	0.9	1.38	1.97E-05
twice/year	2.5	0.3	0.47	6.64E-06
yearly	1.2	0.1	0.22	3.19E-06

FREQUENCY	NICKEL-ALL			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	86.43	1.22E-03
weekly	64.7	7.8	12.34	1.76E-04
monthly	15.1	1.8	2.68	4.12E-05
bimonthly	7.4	0.9	1.41	2.02E-05
twice/year	2.5	0.3	0.48	6.81E-06
yearly	1.2	0.1	0.23	3.27E-06

FREQUENCY	NICKEL-CARR			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	20.93	2.99E-04
weekly	64.7	7.8	2.99	4.27E-05
monthly	15.1	1.8	0.70	9.97E-06
bimonthly	7.4	0.9	0.34	4.88E-06
twice/year	2.5	0.3	0.12	1.65E-06
yearly	1.2	0.1	0.06	7.92E-07

TABLE 6-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	FISH		SELENIUM-ALL LIVER		CAUTION
	INTAKE		INTAKE	EXPOSURE	EXPOSURE
	g/day		g/day	ug/day	mg/kg/day
daily	453.0		54.4	53.98	7.71E-04
weekly	64.7		7.8	7.71	1.10E-04
monthly	15.1		1.8	1.80	2.57E-05
bimonthly	7.4		0.9	0.88	1.26E-05
twice/year	2.5		0.3	0.30	4.26E-06
yearly	1.2		0.1	0.14	2.04E-06

FREQUENCY	FISH		SELENIUM-CARR LIVER		CAUTION
	INTAKE		INTAKE	EXPOSURE	EXPOSURE
	g/day		g/day	ug/day	mg/kg/day
daily	453.0		54.4	35.33	5.05E-04
weekly	64.7		7.8	5.05	7.21E-05
monthly	15.1		1.8	1.18	1.68E-05
bimonthly	7.4		0.9	0.58	8.25E-06
twice/year	2.5		0.3	0.20	2.79E-06
yearly	1.2		0.1	0.09	1.34E-06

FREQUENCY	FISH		SILVER-ALL LIVER		
	INTAKE		INTAKE	EXPOSURE	EXPOSURE
	g/day		g/day	ug/day	mg/kg/day
daily	453.0		54.4	8.48	1.21E-04
weekly	64.7		7.8	1.21	1.73E-05
monthly	15.1		1.8	0.28	4.04E-06
bimonthly	7.4		0.9	0.14	1.98E-06
twice/year	2.5		0.3	0.05	6.69E-07
yearly	1.2		0.1	0.02	3.21E-07

FREQUENCY	FISH		SILVER-CARR LIVER		
	INTAKE		INTAKE	EXPOSURE	EXPOSURE
	g/day		g/day	ug/day	mg/kg/day
daily	453.0		54.4	9.97	1.29E-04
weekly	64.7		7.8	1.28	1.83E-05
monthly	15.1		1.8	0.30	4.37E-06
bimonthly	7.4		0.9	0.15	2.09E-06
twice/year	2.5		0.3	0.05	7.07E-07
yearly	1.2		0.1	0.02	3.39E-07

TABLE 6-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

FREQUENCY	FISH	LIVER	EXPOSURE ug/day	EXPOSURE mg/kg/day
	INTAKE g/day	INTAKE g/day		
daily	453.0	54.4	1.060	1.51E-05
weekly	64.7	7.8	0.151	2.16E-06
monthly	15.1	1.8	0.035	5.05E-07
bimonthly	7.4	0.9	0.017	2.47E-07
twice/year	2.5	0.3	0.006	8.36E-08
yearly	1.2	0.1	0.003	4.01E-08

FREQUENCY	THALLIUM-CARR			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	1.087	1.55E-05
weekly	64.7	7.8	0.155	2.22E-06
monthly	15.1	1.8	0.036	5.18E-07
bimonthly	7.4	0.9	0.018	2.54E-07
twice/year	2.5	0.3	0.006	8.57E-08
yearly	1.2	0.1	0.003	4.11E-08

FREQUENCY	ZINC-ALL			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	1113.84	1.59E-02
weekly	64.7	7.8	159.08	2.27E-03
monthly	15.1	1.8	37.13	5.30E-04
bimonthly	7.4	0.9	18.20	2.60E-04
twice/year	2.5	0.3	6.15	8.78E-05
yearly	1.2	0.1	2.95	4.22E-05

FREQUENCY	ZINC-CARR			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day
daily	453.0	54.4	1337.26	1.91E-02
weekly	64.7	7.8	190.99	2.73E-03
monthly	15.1	1.8	44.58	6.37E-04
bimonthly	7.4	0.9	21.84	3.12E-04
twice/year	2.5	0.3	7.38	1.05E-04
yearly	1.2	0.1	3.54	5.06E-05

FREQUENCY	MERCURY-ALL			
	FISH INTAKE g/day	LIVER INTAKE g/day	EXPOSURE ug/day	EXPOSURE mg/kg/day

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TABLE 6-5. RISK FROM CHEMICALS DETECTED IN FISH LIVERS

daily	453.0	54.4	4.838	5.91E-05
weekly	64.7	7.8	0.691	9.87E-06
monthly	15.1	1.8	0.161	2.30E-06
bimonthly	7.4	0.9	0.079	1.13E-06
twice/year	2.5	0.3	0.027	3.81E-07
yearly	1.2	0.1	0.013	1.83E-07

FREQUENCY	MERCURY-CARR			
	FISH	LIVER		
	INTAKE	INTAKE	EXPOSURE	EXPOSURE
	g/day	g/day	ug/day	ug/kg/day
daily	453.0	54.4	3.262	4.56E-05
weekly	64.7	7.8	0.466	6.65E-06
monthly	15.1	1.8	0.109	1.55E-06
bimonthly	7.4	0.9	0.053	7.61E-07
twice/year	2.5	0.3	0.018	2.57E-07
yearly	1.2	0.1	0.009	1.23E-07

APPENDIX H
SOURCES OF DATA FOR VALUES IN TABLE 8

APPENDIX C

EVALUATION OF HISTORICAL DATA SETS FOR TARGET SPECIES

Author(s)/Date	Evaluation ^a	Notes ^b
Alexander and Young 1976	R	1
Behrens and Duedall 1981	R	1
Belton et al. 1982, 1983	R	2
Brown 1977	R	1
Brown et al. 1984	A	
Butler and Schutzmann 1978	R	1
Childs and Gaffke 1974	R	3,4
Clark 1983	A	
De Goeij et al. 1974	A	
Eganhouse and Young 1978	A	
Energy Resources Co., Inc. 1983	A	
Farrington et al. 1983	R	1
Gadbois et al. 1982	A	
Gadbois and Maney 1983	A	
Genest and Hatch 1981	A	
Gerhart 1977	A	
Goldberg et al. 1978, 1983	A	
Gossett et al. 1983	A	
Greig and Wenzloff 1977	A	
Greig et al. 1977	A	
Hall et al. 1978	R	5,6

Koide et al. 1982	A	
Ladd et al. 1984	A	Selected data
Larsen 1979	A	
Latouche and Mix 1981	R	1
Latouche and Mix 1982a,b	R	8
MacGregor 1974	R	9
MacLeod et al. 1981	A	
Malins et al. 1980	A	
Malins et al. 1982	R	3,9
McDermott et al. 1976	A	
McDermott-Ehrlich et al. 1977	R	5,7
McDermott-Ehrlich et al. 1978	A	
Mix and Schaffer 1979	R	7
Mix and Schaffer 1983a,b	A	B(a)p data rejected:7
Mix et al. 1977	R	7
Mix et al. 1982	R	7
Palmer and Rand 1977	A	
Pruell et al. 1984	A	
Rasmussen and Williams 1975	A	
Ray et al. 1981	R	3,4
Reid et al. 1982	A	Organics data rejected:1
Risebrough et al. 1978	R	2,5
Roberts et al. 1982	A	
Schell and Nevissi 1977	R	1
Sherwood et al. 1978, 1980	A	
Smokler et al. 1979	A	
Stout and Beezhold 1981	R	4,9

Tetra Tech, unpubl. data	A	
Weaver 1984	R	5
Wenzloff et al. 1979	A	
Young and Alexander 1977	A	Metals data rejected:8
Young and McDermott 1975	R	1
Young et al. 1976	R	1
Young et al. 1978a	A	Some Cu and Zn data rejected:7
Young et al. 1978b	R	9
Young et al. 1979	R	8
Young et al. 1980	A	
Young et al. 1981	R	9

^a A = Accept data.
R = Reject data.

^b Reasons for rejection of data:

- 1 = Format precluded use of data (e.g., figure only).
- 2 = Sample type documentation was inadequate.
- 3 = Sampling location was not specified or unclear.
- 4 = Commercial seafood outlet provided samples.
- 5 = Sample preparation and analytical methods were poorly documented.
- 6 = Sample preparation was inadequate.
- 7 = Analytical method was inadequate.
- 8 = Tissue type was inappropriate.
- 9 = Data were out-of-date or reported previously.

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